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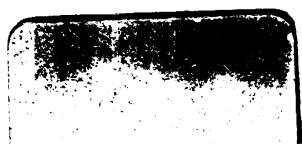
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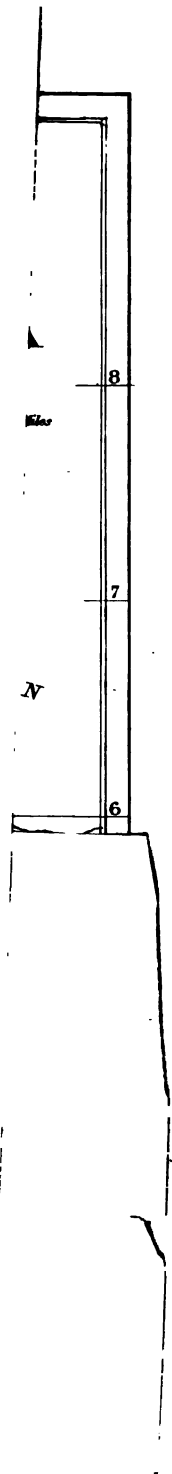


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EL DORADO.

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EL DORADO;

OR,

BRITISH GUIANA

AS A FIELD FOR COLONISATION.

BY THE REV. W. T. VENESS.

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LONDON:

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LUDGATE HILL, E.C.

PREFACE.

FEELING the immense importance of adding to the population of the colony, and the splendid opening presented to thousands of the labouring population of our mother country, who are striving from year to year for a mere subsistence, but who in such a country as this might soon acquire an easy competence, I have thrown together a few loose thoughts upon the subject, in the hope that the public attention may be turned in that direction.

“We dwell,” said Lieutenant-Governor Walker, at the opening of the Local Exhibition at Georgetown in 1861—“we dwell, then, in a country rich beyond calculation, not only in the quantities, but in the varieties of its products; yet the application of human skill and industry has lagged so far behind this munificent liberality of an all-pervading Providence, that even the surface has been but lightly skimmed, while all the depths remain unstirred and unapproached. . . . Even our forests themselves still hide in their dark recesses rich stores of balms, and dyes, and

healing drugs, which, were their properties but developed, would add to the wealth and minister to the enjoyments of our race."

The avocations of a missionary clergyman in the colonies leave scant time for literary occupation; and this must be the author's apology for the crudeness of his production. The pressing importance of the subject, too, seemed to demand that no time should be wasted in putting a polish on pages thrown together in the odd half-hours of rest from ministerial duty. Nor has completeness been aimed at, for the same reason. The task of drawing up practical directions for settlers taking up their abode in this new "land flowing with milk and honey," which would form naturally a sequel to this work, is bequeathed to abler hands: still, something may be gleaned on this head from the relations of Indian life and the habits of our travellers. It has been my object to collect such materials as will enable the intelligent reader to decide for himself the important question, Is British Guiana a promising field for colonisation? It is beyond my province to give a geographical description of the colony; but I have not failed to select a few passages which describe some of its most striking features, and from which a general idea of the whole may be formed. It is not improbable that much information may be conveyed by these pages even to the colonists themselves, who mostly display a profound ignorance of their own country, many of them never going

twenty miles beyond their habitations. Instances are common of people in Demerara never visiting Berbice, and *vice versâ*. Some excuse may be pleaded for this on account of the difficulties attending locomotion, railways and steam carriage being still in an infantile condition. Those works, too, which have been written on the colony (excepting Waterton's "Wanderings" and Trollope's "West Indies," which by their general interest have obtained a large circulation) are difficult to be procured.

I have to acknowledge my obligation to numerous friends who have kindly facilitated my task by furnishing me with information, books, &c.

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EL DORADO;

OR,

BRITISH GUIANA AS A FIELD FOR COLONISATION.

CHAPTER I.

Is it not a little remarkable that, with the genius for colonisation which the English possess, so little attention should have been attracted to one of ~~her~~ possessions, so favourably situated, but so little known, as British Guiana?

Although this "magnificent province" has been held by Great Britain since 1803, it is worthy of record that a noble lord, who twice filled the office of Secretary of State for the Colonies, spoke of it in Parliament as one of the West India Islands; and so lately as last year the same mistake was made in the *Cotton Supply Reporter*, published at Manchester, the great manufacturing emporium of the North of England. This provoking ignorance is an index to the kind of consideration in which the colony is held in the mother country. We can account for it only from the indisposition which the English feel to risk the effects of a change of climate. They would prefer to brave the inclement winters of Canada, or the scorching blasts of Australia,* with a moderate subsistence, rather than

* "Let me endeavour to convey some notion of what a hot wind really is. It is early morning, and, as you look from your window, you see a thin white vapour rising from the far-off bush. The sheep, out there in the distance, are congregated beneath the trees; the old cows are standing knee-deep in those clayey creeks of water that trickle from the heaped-up rocks above. Before breakfast there will be a hot wind. It

accumulate wealth in the tropics. Dire visions of fever and ague, and ghosts of the victims of "pestilential swamps," haunt their imagination, and they banish the thought of such an inhospitable country from their memories. "Give a dog a bad name," &c., tells the rest of the story.

But, in order to trace out how it is that the colony of British Guiana enjoys so indifferent a repute, we must take a retrospective view of its history. Here is a country under the sceptre of Queen Victoria, possessing unrivalled advantages for relieving the Old World of its surplus population, with an area of 76,000 square miles, a coast-line of 200 miles, intersected in every direction by rivers and creeks, abounding, not only in valuable timber trees, but also in medicinal plants, gums, &c., in a profusion that would defy description—how is it that it remains a puny, struggling colony, with a population of only 150,000, subsisting, as it were, by the strength of its constitution, but which any extraordinary shock would seem to threaten with dissolution? It must be remembered that the Dutch held the colony from 1580 till 1803, with the exception of slight intervals that scarcely deserve notice here. They settled up the rivers, far

comes; the white earth cracks as it passes over it, as though it were a globe of crystal struck by some invisible and mighty hand. The air is hot and murky as the breath from an oven, and you see the trees wither—the fruit shrivel and drop from the vines. The cicadas seem to shriek (their shrill note is always shrillest in hot weather), and the birds drop dead from the trees. The dogs in the street lie down and hide their protruding tongues in the dust. Higher and higher rises the mercury in the glass, until now, at noon, it stands at 147°. You stop up every keyhole and crevice in your room to keep out the burning sirocco until the change comes. The 'southerly buster,' as this change is called, generally comes early in the evening. A cloud of dust—they call it a brickfielder—thicker than a London fog, heralds its approach, and moves like a compact wall across the country. In a minute the temperature will sink fifty or sixty degrees, and so keenly does the sudden change affect the system, that you have recourse to your great coat until a fire can be lighted. Now, if you look from your window in the direction where you saw that white vapour ascending in the morning, a spectacle, terrible in its magnificence, will meet your eye. For miles around, as far as the eye can reach, bushfires are blazing. You see the trail of the flames, extending inland, until it grows faint and thin along the hill-tops, as though a wounded deer had moved bleeding along the road."—*Southern Lights and Shadows.*

away from the coast, where the land was elevated and salubrious, and the soil productive. Perhaps they were influenced to some extent in this choice by the security which the situation would afford them from the attacks of freebooters, who roamed the seas unmolested in search of plunder. Their estates were cultivated by slave labour, and they exported, in addition to sugar and rum, coffee, cotton, cocoa, and tobacco. Notwithstanding the privations which the first colonists must have had to endure before the rude wilderness was reclaimed from a state of nature, the dogged perseverance which characterises the race enabled them gradually to accumulate comforts and to add to their prosperity. The plantations were, in course of time, ornamented with every variety of fruit trees, and the garden was made to produce all the delicacies so agreeably remembered in connection with the old country. Trim walks and avenues, well-kept roads, and a general air of neatness about the buildings, testified unmistakably the nationality of the owner. Something more than comfort, too, was thought indispensable; and a profusion, and prodigality even (atoned for, however, by a most cordial spirit or hospitality), which was in rare contrast to the frugal habits of their European brethren, astonished those who for the first time witnessed the manners of the colony.

Perhaps, if the Hollanders had remained undisturbed in their possessions, the coast might now have remained a *terra incognita*; but the policy of the English has been the reverse of that of the early Dutch. Abandoning the high land of the interior, they were captivated by the far richer alluvial soil of the coast; but at the same time they exposed themselves to all the deleterious influences fostered by a low-lying and badly-drained district. The supposed necessity for forced labour is quite sufficient to explain why free settlers did not flock to the colony. Land was only attainable in large quantities, and capitalists were the only persons who could possibly be induced to take an interest in its

prosperity, in consequence of the large outlay required for the supply of slaves—independent of the purchase of the estate. With the abolition of slavery the staff upon which the proprietors had leaned was rudely torn away, and a crisis occurred which brought ruin on hundreds. The cultivation of cotton in the Southern States of America at a very low price compelled the planters to discontinue the growth of it here, as unremunerative. The independence of the negroes and their practice of striking at crop time, just when their services were most required, and demanding exorbitant wages, drove coffee out of the list of exports. The products of the cane alone continued to maintain their position; and to secure this, after an immense deal of agitation and supplication, the boon of an authorised system of immigration was granted to the planters, whom ruin was staring in the face. From the limited supply of immigrants and the indisposition of the negroes to work regularly, it became of prime importance that all available labour should be secured for the sugar estates, if the cultivation was to be kept up. For this purpose the English labourer would have been almost useless. He could not toil in the open fields, exposed to the hot sun, nor would he be likely to withstand the malaria of the coast districts. Hence this class of emigrants have never been encouraged to come to the country. They can do nothing towards maintaining the staple product of the colony, and the planting interest have always viewed with jealousy any proposition that might have a tendency to withdraw labour from the sugar estates. I shall have occasion to point out the prejudicial effects of this policy in a subsequent page. But there is full scope for English enterprise and English industry in the country, notwithstanding. There is no reason why our former products, coffee, cocoa, cotton, tobacco, should not again be quoted in the price current: nor why many other articles should not be added to the list. There is no reason why the English labourer should not find a home on the highlands up the rivers of British

Guiana, and supply that desideratum on which the future prosperity of the colony so much depends—a class of industrious small farmers cultivating their own freeholds. When I say the English labourer, I would not be understood as speaking of him exclusively: he is an extreme case; and, in vindicating the suitability of the country for him, I do by implication advocate the propriety of its settlement by others more favourably circumstanced than he is. Above all, I do not forget the teeming millions of that vast and overpopulated empire, with whose resources we are but just beginning to make ourselves acquainted. Of this more hereafter. In Jamaica, such a class as that of which I have spoken exists, and tends greatly to increase the trade of the island. About one-half of the exports are derived from the labours of small proprietors, who cultivate a great variety of products; and it is not improbable that, had it depended solely on its sugar cultivation, the island would not have presented the comparatively flourishing aspect which it now wears. There is a passage in Sewell's "Ordeal of Free Labour in the West Indies," which, as it has a bearing on this part of the subject, I will here quote:—"Upon the colonising principle, Jamaica is ready to receive and sustain a million of free, intelligent, and industrious labourers. And not alone labourers. The island is in want of settlers and farmers from Europe or America, who will stimulate, by the force of example, the sluggish energy of the creole peasantry—who will teach them to economise the labour that they waste, to cultivate more wisely, and to reap more abundantly—who will introduce among them comforts of which they are now utterly ignorant. If the advantages of this colony had ever been fairly placed before the world, and a cheap line of travel established, there is no reason to doubt that many of the British and German emigrants who wander to other places, would have turned their steps hitherward, where the climate is so salubrious and the land so fertile. A few settlers of this kind could not fail to stimulate creole enterprise; and,

with abundance of labour to satisfy the demands, not only of the planting, but of all the other interests, down to the settler himself, there need be no speculation about the future of the island or the ultimate triumph of the free system." *Mutato nomine de te* (British Guiana) *fabula vera est*. Jamaica is an island 140 miles in length and 50 in extreme breadth, with an area of 6,400 square miles, and a population of about 450,000. British Guiana has an area of 76,000 square miles, with a population of about 150,000. Mr. Sewell's words, therefore, have a most striking application to this colony, which in most respects far excels Jamaica in the advantages it offers to intending emigrants. Jamaica, however, is so far better circumstanced in having a more abundant supply of labour and a respectable class of yeomen. Whatever may have been the cause, this consummation has not been attained in British Guiana. Such was the earnest hope and dream of Wilberforce, Buxton, and those other philanthropists to whose unwearied exertions the creole negroes owe their enfranchisement. But if those benevolent individuals could rise from their graves and see the lamentable condition of the greater proportion of their *protégés* at the present day, how would they regret that they had not adhered to their own moderate counsels—to liberate only the children born after a certain fixed day, instead of being influenced by a minority of noisy and enthusiastic theorists, whom nothing would satisfy but an indiscriminate emancipation! Pleasing as would be the anticipation, we cannot, after an experience of nearly thirty years, hope that the negro element is destined to extend the civilisation of the country by opening up new settlements. Hitherto almost all that the negroes have done has been to sit down on abandoned coast estates, raise cattle, grow provisions sufficient to satisfy the wants of their families, and rest contented. Very little ambition is displayed to draw around them luxuries, or even comforts, to raise their *status* in society, or to improve themselves. What may be the disposition of the race

when another generation has passed away, it is not for us to forecast. Let us hope for the best. Meantime, we must look elsewhere.

Hitherto, in addition to the obstacles in the way of colonisation already mentioned, there has existed a very powerful one in the shape of excessively stringent and vexatious regulations with regard to crown lands. It is no libel to state that these have been framed in subservience to the interest of one class—certainly one on which the community, as a community, depends for existence—viz., the planters. “Self-preservation is the first law of nature.” To restrict the population to the settled portions of the colony has hitherto been the policy of the Legislature. In 1861 an Ordinance was passed which doubled the price of crown land, making it 10 dols. an acre, at a time when abandoned estates on the coast could be purchased for one-fifth of that amount, and river estates at even a lower rate. This Ordinance, however, contained a clause, the insertion of which redeems it from the unmeasured condemnation which it would otherwise have deserved, and seems to mark a new era in the progress of public opinion.

“It shall be lawful for the Governor, with the advice and consent of the Court of Policy, to issue free grants of land in such localities and allotments, subject to such regulations, and in favour of such immigrants coming to the colony at their own expense, as the Governor and Court of Policy, by proclamation, shall from time to time be pleased to declare; but every such grant shall be subject to the conditions that, within one year from the date thereof, the grantee shall be bound to erect a dwelling-house on his land, and to put such land in cultivation, to the satisfaction of the Superintendent of the District, and that during the next six years thereafter he shall continue *boná fide* to cultivate or otherwise beneficially to occupy the land, on pain of forfeiting his grant.”

The sense of the community, however, is so generally in favour of adding to our scanty population, by

every available means, as the only hope of rescuing the colony from the insignificant position it at present occupies, that, doubtless, these regulations will be superseded by a more liberal code ere long. Even if this should not be the case, there is sufficient public spirit to accomplish, by private subscription, what, undoubtedly, comes more within the province of the executive. Let us, therefore, suppose (as we fairly may) all preliminary obstacles put out of the way, it remains to be proved that British Guiana is a suitable field for colonisation. I am aware that, whatever I may say on the subject—were my pen ever so descriptive—can only carry an infinitesimal amount of weight with it, and may be regarded by some as the mere hallucinations of one whose sanguine temperament has been led captive by the exterior charms of Nature, and the apparent romance of a bush life. I have, therefore, jotted down here what certain men have written, who are already before the public, and whose position entitles their opinions to be received with respect.

CHAPTER II.

SOME years since, at a time when great distress prevailed in England, and numbers of the labouring classes were in want of employment, Dr. Hancock, who resided in this colony for twenty-five years, and traversed the country in various directions, with the object of adding to the stores of medical knowledge, by inquiring into the mode of treating diseases practised by the aborigines, and also to direct attention to the different medicinal substances, of barks, gums, balsams, &c., indigenous to the country, wrote a pamphlet, in which he advocated the formation of a Company for promoting emigration to British Guiana. This is the source of the following quotations:—

“Guiana is most favourably situated of any part of America, or the world, perhaps, with respect to the winds and sea breezes. It lies in the main track of the equinoctial currents, whilst hurricanes, so terrific and destructive amongst the West India Islands, are unknown here, and the equinoctial gales are extremely steady and uniform throughout Guiana. . . . An opinion is very prevalent that the heat of the climate renders Europeans unable to labour, or encounter much fatigue in these countries. This is a great mistake; for, on the contrary, it is a fact that those who take most exercise enjoy the best health, provided they live temperately. It is the excessive use of strong liquors that proves deleterious to Europeans in hot climates, and which, together with the heat, renders them incompetent to sustain much fatigue, until they become accustomed to it. It is alleged—most erroneously—that strong liquors are necessary to counteract the

debility arising from the heat. Except in great moderation, they have the contrary effect, and have ever been the chief cause of the mortality which formerly prevailed. . . . It is well known that many families in this country [England] are affected with scrofula and a strong disposition to pulmonary consumption. To such families or individuals the climate of Guiana would be the most eligible of any in the world, as affording an exemption from such complaints. The writer can say, that he has never met with an instance of genuinetubercularphthisis on the coast of Guiana, nor a single case of calculus, or stone in the bladder, generated there. . . . Physicians often recommend to their consumptive patients a voyage to Montpellier, Naples, Rome, Madeira, &c.: had they a knowledge of the advantages offered by a Guiana climate, they would, assuredly, never think of sending patients to those places. . . . In the interior parts of Guiana the purity of the air is such that, in the dry season, the stars appear like brilliants in the deep azure sky at night, and we not unfrequently perceive planets in the daytime. . . . At the same time the splendour of the moon and the zodiacal light contribute to make the nights most pleasing, and to throw a charm on every object. . . . The testimony of the woodcutters constantly assures us that wooded parts and inland forests are never found to be unhealthy to either Europeans or others. These are facts which I can vouch for; and to show they are not contrary to reason, let it be considered that it is not the absolute degree of temperature that determines the salubrity of any climate, but, as every one knows, it is the great and sudden changes from heat to cold, and from cold to heat, which chiefly render any country unhealthy. Now there is probably no country on the globe where the temperature is more uniform than in Guiana.

“Guiana is watered by innumerable rivers; but the great highways to the interior from the British settlements are mainly by the Essequibo, Demerara, and

Berbice. These afford the greatest facilities for navigation with large schooners or steamboats to the distance of from fifty to eighty miles inland; that is, to the first ridge of land (at the falls or rapids of these rivers) which forms, as it were, a wall or parapet to the more elevated lands. . . . At these falls the primitive soil commences, although there are fertile lands below this ridge. . . . Were the natural avenues of Guiana, however, far less than they are, we could in such a country have nothing to fear—especially since the vast development of modern science in the construction of canals, roads, and railways. . . . The traveller in this temperate region has no cold or excessive heat to dread. His house for the night is built by the Indians in a few minutes; that is to say, a shed, covered with two or three leaves of the troolie, or other palm, which is sufficient in a mild climate never invaded by hurricanes. . . . It might be most eligible to form a settlement at or near the first falls . . . sixty or seventy miles up the river, where an excellent soil will be found for raising Indian corn, rice, millet, plantains, yams, sweet potatoes, cassada, eddoes, and various culinary plants, of which an abundant supply would soon be obtained. In the meantime, the planting of tobacco, coffee, cocoa, cotton, and sugar may be commenced, as also grapes, figs, dates, &c., as desired. The emigrants might be composed of the surplus population of this or any other country desirous of availing themselves of this new and inviting asylum, offering, as it does, by its productiveness and natural capabilities, more scope for industry than any other portion of the American continent. . . .

“There is, or was not long since, existing a coffee-field up the Essequibo, which has been planted at a period unknown, supposed to be about the first settlement of the Dutch, and this is found to continue bearing in abundance—Nature alone, on this fertile soil, keeping up a reproduction of the trees! It is a fact that these interior lands will produce far more sugar,

coffee, cocoa, &c., than the sea-coast, and that with half the labour. Of this I have had the fullest demonstration up the Orinoco, where the most abundant crops of cocoa and coffee are produced. . . . The lands alluded to are not only best adapted for the staple articles of sugar, coffee, cocoa, cotton, and indigo, but equally so for numerous others, which will not thrive on the coast. No soil can be more congenial for the produce of dates, figs, olives, and grapes of superior quality, as well as for the various aromatics and spiceries, such as the nutmeg, cloves, ginger, allspice, and cinnamon. . . . This is the natural soil of the odoriferous vanilla. . . . Dyeing woods, cochineal, wild honey, gum-copal, &c., abound in the forests, beside a multitude of treasures unknown to Europeans. Many of our most valuable and expensive medicines, moreover, could be cultivated here with facility, as opium and ipecacuanha. . . . Beside all this, no country in the world abounds more in valuable timber trees for shipbuilding, cabinet work, &c. It is here worthy of remark that the forest trees do not impede those of humbler growth. The coffee, vanilla, and others even require the shade of other trees. . . . The attention of Europeans was long since excited by the fables of El Dorado, and of the lake Parime . . . but whether these contain mines of precious metals or not, their greatest riches, no doubt, consist in the vegetable products of the soil. These lands are but an extension of those visited by Humboldt on the Rio Negro, which that celebrated traveller designates a 'new world of plants,' and where he was confounded by the profusion of new vegetable forms.

"The domestic animals of the interior also are kept with extraordinary facility—as horses, mules, hogs, goats, fowls, &c.—and horned cattle multiply so much as to run wild on the savannahs. . . . Besides this, the interior abounds in wild animals, which afford the most delicate and wholesome nourishment, as bush

hogs, deer, mypoories, lapas, the great river turtles, and their delicious eggs, as also the manatee, with fish and fowls innumerable.

“Throughout this rich and beautiful country the great rivers Essequibo, Demerara, Corentyn, &c., afford an easy transit to the higher lands, whence roads and canals may be opened to any other parts of the interior. . . . The superiority in the advantages of emigration to British Guiana . . . must be very apparent. . . . Comparatively small means are requisite to render their industry and exertions promptly available.

“The native products of Guiana are exceedingly multifarious, and present objects of industry and enterprise most diversified. Many different vegetables afford cordage and substitutes for hemp and flax of the strongest and most durable kind, as the fibre of the carata, plantain, coquesa, and the bark of certain trees. . . . Silkworms might be cultivated, and also the expensive cochineal, this being the native soil of the nopals and cactuses.

“But the multifarious objects of industry and enterprise presented in Guiana are beyond conception, and can be but imperfectly indicated here. In short, all the advantages of a fruitful and most healthy climate point out the interior parts of British Guiana as one of the most eligible countries in the world for emigration . . . the usual voyage being not more than a month or six weeks.”

The West India Mail packets accomplish the journey in three weeks; the newly projected Liverpool and West India line reduce the length of the voyage even still further.

I now proceed to quote from Dr. Dalton, one of the latest writers on British Guiana, and who has spent the greater portion of his life in the colony. The following tables are from his “History of British Guiana.”

TABLE OF THE MONTHLY MEANS OF TEMPERATURE, FROM OBSERVATIONS
IN GEORGETOWN FOR FIVE YEARS.

MONTHS.	YEARS.						
	1846.	1847.	1848.	1849.	1850.	1851.	1852.
January	79.2	77.8	77.7	78.4	77.4	78.2	78.7
February... ..	79.0	77.4	77.7	78.0	78.2	78.0	78.5
March	79.8	77.9	78.1	78.6	78.9	78.8	78.3
April	80.6	78.4	79.4	78.5	79.1	79.2	79.8
May	80.7	78.4	78.6	78.7	78.8	78.8	79.7
June	79.8	78.2	78.4	77.9	79.4	78.1	78.7
July	79.3	78.8	79.0	77.7	79.5	80.0	79.2
August	79.4	80.1	80.0	79.2	79.8	79.9	80.6
September ...	81.5	80.6	80.3	80.7	82.1	80.9	81.7
October	80.0	80.5	81.4	80.9	82.3	81.0	82.0
November ...	80.3	80.3	80.7	79.6	81.5	80.0	80.8
December ...	79.0	78.9	78.4	78.5	79.9	79.4	78.2

TABLE SHOWING MONTHLY RANGE OF TEMPERATURE,
GEORGETOWN.

MONTHS.	YEARS.				
	1846.	1847.	1848.	1849.	1850.
January	9.2	8.4	8.5	9.3	
February	9.6	8.1	8.8	9.0	
March	9.8	7.3	8.3	8.7	
April	9.3	7.3	9.4	9.1	
May	9.5	...	9.1	9.6	
June	9.9	...	10.2	10.4	
July	11.5	...	11.3	10.8	
August	11.6	...	12.8		
September ...	11.7	...	12.5		
October	12.7	...	12.3	[Not recorded.]	
November... ..	11.5	...	10.8		
December	9.5	9.4	10.3		

“It will be found that through all the country the temperature may be considered as singularly uniform, and quite compatible with health . . . rendering, perhaps, the climate of this country one of the most delightful in the tropics, nay, in the world.

“According to Stedman, the length of days and nights never varies more in British Guiana than forty minutes. . . .

“The climate of British Guiana is essentially humid . . . out of 1,063 days (according to meteorological tables), there were 502 days without rain—little less than half—the total depth being 252 inches. . . . In no country in the world that I have ever visited is the water superior. . . . With caution and moderate living, frequent ablutions and cleanliness, and ordinary prudence, it is surprising how soon the system accommodates itself to the change during the process of acclimatisation. Very often, in some individuals, scarcely any of the above symptoms [prickly heat, boils, nettle-rash] are experienced, and they settle down with as much comfort in this part of the New World as they enjoyed elsewhere. It is not a little remarkable that, for the first few months, except during the presence of epidemics, it is rare for any individual to suffer from the effects of fever or ague, or, indeed, any important disorder; whilst to persons who practise cleanliness, temperance, and exercise, this country and climate may be considered as favourable as many others. . . . It would be going too far to say that there is a general absence of pain, but, certainly, it is remarkable that the most painful diseases to which human nature is subject are unknown here, or are greatly modified. Neuralgic affections are rare, acute inflammatory cases uncommon. . . . Again, parturition in the human female is unattended in this country with any of that severe suffering and delay which is so general in England and other countries. In ordinary cases, a few hours—generally from two to four—complete the delivery, with moderate pain. . . . Fever and ague are not dangerous; and if

promptly and judiciously treated, rarely fatal. . . . Continued fevers are rare in British Guiana, and are principally met with in children, when the disease is kept up by local irritation or obstruction of the bowels. They are not usually regarded as dangerous, but require more careful treatment and judicious management. This climate has proved singularly beneficial to persons labouring under, or predisposed to pulmonary complaints in general. The bland, warm, and moist atmosphere is particularly adapted to cases of threatened or incipient phthisis (consumption); and even in the more advanced form of the disease it is remarkable how adapted this country is to sustain, if not to prolong, life, under circumstances which elsewhere would rapidly hurry to a fatal termination.* . . . We may safely venture to assert that in no part of the world have instances of a wonderful prolongation of life of phthisical persons taken place than are within the experience of the colonists of British Guiana. . . . In Great Britain about one-fifth of the whole annual mortality is ascribable to that fatal malady alone. . . . Acute rheumatism, or the worst forms of gout, are almost unknown . . . persons who have arrived from Europe afflicted with this disease undergo a spontaneous recovery. . . . In British Guiana there is a remarkable exemption from [biliary disorders], if we may take professional experience, and the evidence of the published hospital tables, for a number of years, as a criterion. Slight derangements of function are,

* Extract from Report of Dr. Christison, Medical Officer of the Colonial Life Assurance Company, for 1864.

"In hot climates at large, those diseases which are usually held to be produced, or at least promoted by climatic exposure—fevers, liver disease, cholera, and dysentery—account for 458 deaths in every thousand of the total mortality; in temperate climates, for only 195, or less than one-half the proportion in hot countries. On the other hand, inflammatory diseases of the lungs account in hot countries for only a third of the proportion of deaths which they occasion in temperate lands, viz., 31 in 1,000, in place of 99; and pulmonary consumption and malignant diseases are similarly circumstanced, the proportions being 99 and 262 in 1,000 against hot climates."

Dr. Dalton's statements are corroborated in other respects by this Report, which deals simply with stern facts.

indeed, frequently noticed; an overflow or deficiency of bile occasionally complicates another disorder, or constitutes a separate disease; but, as a general rule, it will be found correct that comparatively few persons suffer from those formidable diseases which are incident to that organ [the liver] elsewhere. It is only where hereditary disposition, dissipated habits, or irregular living obtain, that it is at all met with; and I am inclined to consider that this climate is opposed to the prevalence of severe and fatal disorders of the liver. . . . Diseases of the bowels are not particularly frequent, considering the carelessness and irregularity of living among the inhabitants. . . . Dysentery is generally considered as very constant and fatal in warm climates. . . . In British Guiana it is not particularly common or severe.

“There are many grave and important diseases from which the colonists of this country are altogether exempt, and numerous others from which they are more or less free. Thus, for instance, there are no instances in this country of contagious or infectious fevers (except the exanthemata, viz., small-pox, scarlatina, measles, &c.). The endemic and epidemic fevers which occur are not of a character to spread by contact, or the communication of the affected person with others in ordinary health. Again, calculus, or stone in the bladder, has never been known to occur, although, occasionally, slight cases of gravel are met with; neither are diseases of the bladder common or so fatal as in Europe. Affections of the kidneys are also rare; ‘morbus Brightii,’ the disease so well known to European practitioners, is by no means common, although albuminous urine occasionally occurs, but readily yields to treatment, and appears chiefly owing to some irregularity in the digestive organs. Diabetes mellitus, so frequent in England, has never been met with here to my knowledge. . . . Neither are other constitutional diseases, such as goitre, scrofula, syphilitic affections, or gout, so serious or prevalent as in colder climates. Hydrophobia is unknown. . . .

Cases of aneurism, malignant tumours, diseases of bones, and the various complications of constitutional and hereditary diseases, are by no means so common as in Europe and the United States. . . .

“The epidemics which visit these shores are remarkably few in number, and, with the exception of one, are not particularly fatal. . . . Those fatal epidemics which so often ravage other countries are here unknown, such as . . . typhus fever, plague, ophthalmia, and their infinite varieties and complications.

“The only two endemic diseases of any importance in British Guiana are intermittent fevers and ulcers; neither of them dangerous, if early and properly treated.”

So much for the medical aspect of the question—a matter of the first importance to those who are meditating as to the best locality in which to fix their future abode.

CHAPTER III.

WE turn now to an earlier writer, still one of the disciples of Æsculapius, who published, at the beginning of the century, the result of observations which, in the course of duty, he was enabled to make in the West Indies, and more particularly in this colony—Dr. Pinckard.

“From the situation of these colonies with respect to the sun and ocean, and from the territory being a continued flat [he alludes specially to the coast], we are scarcely ever without a free and steady breeze, which creates an equable temperature, and renders the climate peculiarly uniform. At 6 in the morning the thermometer is usually between 74 and 77 deg., and at noon it has seldom varied more than from 81 to 84 deg.

[Plantation/] “Johanna also afforded other marks of European resemblance, which are not common in the colonies, such as an excellent garden laid out, and cultivated very much *à l’Anglaise*; and in the fields a numerous herd of cows and oxen. In the garden we saw asparagus, artichokes, turnips, cucumbers, carrots, French beans, cabbages, and other European vegetables, growing in all the health and vigour of a more temperate climate. . . .

“Soon afterwards we made our *congé* to the ladies and took our departure from Johanna. We crossed the river in a boat, and, on reaching the opposite bank, to our surprise, we had to ascend a hill, which to a Dutchman might have seemed a mountain; and on arriving at the summit of this elevated shore, we found slaves and horses in readiness to conduct us to Arends, the house of Mynheer Pauels. The first

part of our ride was across a wide plain, bordered with heavy forests, and exhibiting all the rudeness of primitive Nature; next we traversed the deep woods, by way of a narrow path, then we escaped again into an open and wild savannah, more varied and interesting than any uncultivated spot we had seen in the colony.

. . . At about the distance of nine miles from 'Johanna' the estate Arends suddenly opened to our view, and the scene before the eye became unusually varied and European. It, in some degree, reminded us of Old England, a circumstance which gave it additional interest, and led us to contemplate it with a kind of filial respect. Looking down from high land, we saw below us a rich plantation of coffee, cotton, and cocoa, together with the house and home of M. Pauels. On descending from the rude plain to this finely-cultured estate, our road was continued along a fragrant path bordered with rows of oranges and pines, which led across the plantation up to the house.*

. . . While on the shore, at this point of land, we saw an old Dutch gentleman, a resident at the battery, who had enjoyed seventy-six years of life, and was still humorous and sprightly as in his youth. . . We likewise met at breakfast one of the oldest inhabitants of the colony . . . whose age and venerable figure commanded great respect for his person, while it impressed a favourable idea of the salubrity of the climate. . . Amidst the woods, and at the estates far up the river, we had almost wholly escaped the annoyance of insects. Mosquitoes did not seem to inhabit the depths of the forest. In these parts we

* The following note is obligingly communicated by A. Winter, Esq. :—The scene of the doctor's ride was the Manacabouri Savannah, and the estate he visited, "Den Arend," laid down in Downer's Map of Berbice, on the banks of the Wironie. The striking resemblance of this part of the colony to the downs of England is remarkable, and is noticed by every traveller.

The estate, "Den Arend," was one of the last to be given up, and it was not till the year 1818 that the people were removed to a sugar estate in the lower district, near New Amsterdam. There is now (1865) near "Den Arend" an interesting Indian Mission, and the cultivation of coffee, cotton, &c., is still kept up by the inhabitants on a small scale.

had also found the air cooler, and the land less heated than where it was cleared of wood, and more open. . . . This climate is, perhaps, one of the most steady in the world, the range of the thermometer, upon the cultivated part of the coast, being only from 11 to 15 degrees. Most commonly the mercury is at 73 at 6 o'clock in the morning, and at noon 84. The lowest I have seen it, at any time, was 72—and the highest 87. . . . We have not, even in what is termed the rainy season, any thick and foggy days, like those of an English November. The wet season is a rapid alternation of dark clouds, with a clear atmosphere and bright sunshine. No foggy damps succeed the rushing torrents: the black cloud from which they fall pours forth its streams, exhausts itself, and passes away—leaving the obscured rays of the sun again free to reach the earth; and all is clear and bright between the heavy peltings of the storm. . . . Fruit and vegetables form almost the whole of my diet, and I now suffer no distress on account of our scanty supply of animal provisions. As was predicted to me, I am become so fond of plantains as scarcely to require any other food, and I am persuaded that if they could be had in all climates, they would be found, without exception, the most valuable production of the earth. Roasted, they serve as bread—fried, they are as meat and as fruit—boiled, they are a substitute for potatoes, and beat into a paste they form excellent pudding. Like the slaves, I now eat them morning, noon, and night. At breakfast they are my bread and butter—at dinner my meat and pudding—and at tea-time my only cake and toast. . . .

[The Indians] “when the supply obtained by the bow and arrow is less plentiful, or when their hunt in the woods happens to prove unsuccessful, . . . find a resource in crabs and cassada, which may be considered their staple article of consumption. Indeed, the cassada may be called their *staff of life*, for it offers a supply when they fail in the chase, and becomes to them what plantains are to the negroes of these

colonies, or potatoes to Irish peasants. . . . We are advancing gradually into the dry season. . . . The kindly breeze is steady and powerful, and the thermometer, at noon, seldom exceeds 82°; a degree of heat that we are able to support, without feeling those heavy sensations of languor and weariness, which are found so extremely oppressive in the sultry days of an English summer. Another very great comfort, not peculiar to this season, but which we commonly experience in this climate, is the total freedom from that lassitude and yawning so common in England, at the hour of rising in the morning, and which is not only troublesome and unpleasant, but frequently causes us to steal another hour from the already too shortened day. Here, it is but one thing to awake, and to get up. The instant your eyes are open the slumbers of the night are wholly past, and you have no feelings of heaviness or drowsy languor to oppose your rising; but in wakeful sprightliness you at once quit the pillow, and are ready to engage in the active pursuits of the day.* . . .

“The scenery now sensibly improved, as we advanced up the river . . . and after the insipid monotony of flat woods and water, the objects which now presented themselves were novel and varied; and all around us seemed calculated to excite a strong and peculiar interest. Many of the Indians were moving upon the river in their canoes; some alone, some in families, and some in large bodies: cottages and Indian huts occasionally opened to our view in the woods: high banks sometimes bordered the river; and not unfrequently hills and lofty summits crowned its shores. . . . About 9 o'clock we went to our hammocks—some in chambers, some in the passages, and some under the house, which was built upon pillars, a considerable height from the ground. It will be seen from this, how little difficulty occurs in the nocturnal accommodation of large parties of friends or strangers, in a warm climate. Neither extensive

* See page 37.

buildings, nor a number of rooms, nor even beds, palliasses, nor mattresses are required. A few cleets, or iron hooks, fastened up in different parts of the house, for the support of hammocks, are all that necessity demands. From this facility of arrangement for the night, the ceremony of invitation is not always held requisite, and it is often seen that marooning parties, consisting of no inconsiderable numbers, make their visitations unexpectedly, yet find convenient accommodation, even in the smallest houses, and the most retired situations.

"I before took an opportunity of noting to you the great stability of temperature which prevails on this coast; and I may now observe that this is not much interrupted even at the distance of 200 miles from the sea. . . . Much had been said of the multiplied perils of the forest, and we had heard of fierce tigers, enormous snakes, poisonous serpents, runaway negroes, ferocious savages, and various other dangerous inhabitants of the woods and the waters, but it did not happen to us to be interrupted by any of them; and although tigers, serpents, bush-negroes, and wild Indians doubtless exist in these regions, the peril to be apprehended from them bears no sort of proportion to the extravagant alarm pictured by the fearful imaginations of stay-at-home travellers.*

"Around the dwelling luxuriate, in a generous soil, the fruitful bread-tree, the cucumber-tree, the cocoanut, the stately mountain cabbage, the grenadillo, the water-lemon, grapes of different species, mangoes, figs, cherries, almonds, star apples, pines, and a multitude of other fruits, together with a great variety of the more rare and beautiful plants and flowers of these regions.

"All the comforts and advantages of a European garden, it was here proved, might be far exceeded in this bountiful soil, which so rapidly and abundantly returns the labour bestowed on it. A long walk finely shaded with grenadilloes, the fruit of which hung in

* See page 32.

profusion over our heads, had been planted only a few months before. The young shoots of fig-trees, whose parent branches are cut away every year, were quite loaded with fruit; and the grapes hung in heavy clusters from single stems—all the other parts of the vines being entirely pruned away. Indeed, so prolific are the plants, and so luxuriant their growth, that to ensure an abundance of fruit, it seems only necessary to commit seeds and shoots to the earth, and to cut out, from time to time, the greater part of the wood of the trees.

“These colonies possess the great advantage of being free from hurricanes and earthquakes. . . . They are also exempt from great droughts, which are so frequently injurious to the islands; and, in consequence of being open to the breeze, they are less liable to frequent and sudden changes of temperature; neither hills, nor rocks, nor woods offer any impediment to the grateful trades which kindly come to them from the ocean, and are scarcely ever absent throughout the whole annual circle.”

Let us vary the entertaining observations of the garrulous doctor by skimming, for awhile, over the gay and pleasant remarks of the latest writer who has made British Guiana the theme for his pen. Making allowance for his playful style, and a good deal of sly raillery, Mr. Trollope evidently has great faith in the future of the colony. He says—

“When I settle out of England, and take to the colonies for good and all, British Guiana shall be the land of my adoption.

“There never was a land so ill spoken of, and never one that deserved it so little. . . . Demerara is the Elysium of the tropics—the West Indian happy valley of Rasselas—the one true and actual Utopia of the Carribean seas—the transatlantic Eden. . . . The form of government is a mild despotism tempered by sugar.

“Boundaries. . . . But to the rear! To the rear there is an eternity of sugar capability in

mud* running back to unknown mountains, the wildernesses of Brazil, the river Negro, and the tributaries of the Amazon—an eternity of sugar capability, to which England's colony can lay claim if only she could manage so much as the surveying of it. 'Sugar!' said an enterprising Demerara planter to me; 'are you talking of sugar? Give me my heart's desire in coolies, and I will make you a million hogsheads of sugar without stirring from the colony!' . . . I really think my friend was right. There is no limit to the fertility and extent of this region; the only limit is in labour. The present culture only skirts the sea-board and the river-sides. . . . Oh, ye soft-hearted, philanthropic gentry of the Anti-slavery Society, only think of that; a million hogsheads of sugar—and you like cheap sugar yourselves—if you will only be quiet, or talk on subjects that you understand.

"I went over the hospital (Georgetown) with the doctor there—for even in Demerara they require a hospital for the negroes. 'And what is the prevailing disease of the colony?' I asked him. i/

"'Dropsy with the black men,' he answered, 'and brandy with the white.'

"'You don't think much of the yellow fever?' I asked him.

"'No; very little. It comes once in six or seven years; and like influenza or cholera at home, it requires its victims. What is that to consumption, whose visits with you are constant—who daily demands its hecatombs? We don't like yellow fever, certainly; but yellow fever is not half so bad a fellow as the brandy bottle.' . . .

The extent of native work which can be obtained by the planters and landowners at terms which would enable them to grow their produce and bring it to the market, does not, in any of these colonies, suffice for success. It can be worth no man's while to lay out his capital in Jamaica, in Trinidad, or in Guiana,

* Mr. Trollope never saw anything of the interior.

unless he has reasonable hope that labouring men will be brought into those countries. The great West Indian question is now this: Is there reasonable ground for such hope?

"The Anti-slavery Society tells us that we ought to have no such hope—that it is simply hoping for a return of slavery; that black or coloured labourers brought from other lands to the West Indies cannot be regarded as free men; that labourers so brought will surely be ill-used; and that the native negro labourer requires protection. . . . In one sense, no dependent man working for wages can be free. He must abide by the terms of his contract. But in the usually accepted sense of the word freedom, the coolie, or Chinaman immigrating to the West Indies is free. . . . As to the charge of ill-usage, it appears to me that these men could not be treated with more tenderness, unless they were put separately, each under his own glass case, with a piece of velvet on which to lie. . . . As to the native negro requiring protection—protection, that is, against competitive labour—the idea is too absurd to require any argument to refute it. As it at present is, the competition having been established, and being now in existence to a certain small extent, these happy negro gentlemen will not work, on an average, more than three days a week, nor for above six hours a day."

I am sensible of a serious digression here; but the case of the colony is so well put in a question of the most vital importance regarding its interests, that I could not forbear inserting remarks somewhat foreign to the subject in hand. To continue:—

"It is a natural thing that men should hesitate to trust themselves to a future of which they know nothing; and as natural that they should hasten to do so when they have heard of the good things which Providence has in store for them. It required that some few should come out and prosper, and return with signs of prosperity. This has now been done; and, as regards Guiana, it will not, I imagine, be long before negro

labour is, if not displaced, made, at any rate, of secondary consequence in the colony.

“There is another race of men, and of women too, who have been, and now are, of the greatest benefit to this colony. . . . the Portuguese who have come to Demerara from Madeira. Here, in Guiana, they are in great numbers, and thrive wonderfully. . . . Nevertheless, they all reached the Demerara river in absolute poverty.

“On the whole, I must express my conviction that this is a fine colony, and will become of great importance.

“I cannot end this crude epitome of crude views respecting the colony without saying that I never met a pleasanter set of people than I found there, or ever passed my hours much more joyously.”

CHAPTER IV.

WE come now to another writer—Waterton—who resided in the colony for some considerable time. I may state candidly, that some of his anecdotes have procured for him the reputation of drawing the long bow.* Yet this does not impeach the correctness of his descriptions of natural scenery, &c., which is depicted with such choice language and felicity of expression that his “Wanderings” (“attractive, yet faithful ‘Wanderings,’” says Schomburgk) have all the appearance of a romance. Three qualifications in our author combine to produce this result—a decidedly poetic fancy, an enthusiastic love of Nature, and a fine appreciation of the picturesque. He is now speaking of the Demerara river:—

“From Amelia’s Waard an unbroken range of forest covers each bank of the river, saving here and there where a hut discovers itself, inhabited by free people of colour, with a rood or two of bared ground about it; or where the woodcutter has erected himself a dwelling, and cleared a few acres for pasturage. Sometimes you see level ground on each side of you for two or three hours at a stretch; at other times a gently-sloping hill presents itself; and often, on turning a point, the eye is pleased with the contrast of an almost perpendicular height jutting into the water. The trees put you in mind of an eternal spring, with summer and autumn kindly blended into it.

* Not unnatural of one who writes, apparently, with great gusto—
“I have climbed to the point of the conductor above the cross on the top of St. Peter’s, in Rome, and left my glove there. I have stood on one foot, upon the guardian angel’s head, on the castle of St. Angelo; and . . .
I have been low down under the Fall of Niagara.”

"Here you may see a sloping extent of noble trees, whose foliage displays a charming variety of every shade, from the lightest to the darkest green and purple. The tops of some are crowned with bloom of the loveliest hue; while the boughs of others bend with a profusion of seeds and fruits. . . . In a country so extensively covered with wood as this is, having every advantage that a tropical sun and the richest mould in many places can give to vegetation, it is natural to look for trees of very large dimensions. But it is rare to meet with them above six yards in circumference.* If larger have ever existed, they have fallen a sacrifice either to the axe or to fire. If, however, they disappoint you in size, they make ample amends in height. Heedless, and bankrupt in curiosity must he be, who can journey on without stopping to take a view of the towering mora. . . . The trees which form these far-extending wilds, are as useful as they are ornamental. It would take a volume of itself to describe them. The greenheart, famous for its hardness and durability; the hackea, for its toughness; the ducalaballi, surpassing mahogany; the ebony and letter wood, vying with the choicest woods of the Old World; the locust-tree, yielding copal; and the hyawa and olon trees, furnishing a sweet-smelling resin, are all to be met with in the forest betwixt the plantations and the rock Saba [Demerara river]. . . . Beyond this rock, the country has been little explored; but it

* "In the provision fields behind my tent stood one of the finest trees I have ever seen in my wanderings. The compound leaf, the small leaflets, and, indeed, the whole appearance bespeak it to be a mimosa. Its whole height is 168 feet; the trunk, from the base to the first branches, 73 feet. About a foot and a half above the ground it measured only 27 feet in circumference, but ascending perpendicularly of almost equal thickness to the first branches. It appears like a slender column bearing its finely-formed leafy capital. Numerous nests of the oriole, which generally build in families, were constructed on one of its branches near the summit, sure of being there unmolested by either monkey or tiger cat. The Indians themselves seemed to have some regard for this singular tree: it stood amidst the provision fields, and while almost all the other trees had been felled by the axe, this was spared; which made its gigantic size appear all the more striking."—Schomburgk's "*Journey from Watu-Ticaba to the Pianohottos.*"

is very probable that these, and a vast collection of other kinds, and possibly many new species, are scattered up and down, in all directions, through the swamps and hills and savannahs of *ci-devant* Dutch Guiana. . . . No grass grows under the trees; and few weeds, except in the swamps. The higher grounds are clear of underwood, and with a cutlass to sever the small bush ropes, it is not difficult walking among the trees.

"The soil, formed chiefly by the fallen leaves and decayed trees, is very rich and fertile in the valleys. Demerara yields to no country in the world in her wonderful and beautiful productions of the feathered race. Here the finest precious stones are far surpassed by the vivid tints which adorn the birds. . . . This warm and humid climate seems particularly adapted to the producing of insects; it gives birth to myriads, beautiful past description in their variety of tints, astonishing in their form and size, and many of them noxious in their qualities.

"He whose eye can distinguish the various beauties of uncultivated Nature, and whose ear is not shut to the wild sounds in the woods, will be delighted in passing up the river Demerara. Every now and then, the maam or tinamou sends forth one long and plaintive whistle from the depth of the forest, and then stops; whilst the yelping of the toucan, and the shrill voice of the bird called pi-pi-yo is heard during the interval. The campanero never fails to attract the attention of the passenger: at a distance of nearly three miles, you may hear this snow-white bird tolling every four or five minutes, like the distant convent bell. From six to nine in the morning, the forests resound with the mingled cries and strains of the feathered race; after this they gradually die away. From eleven till three all Nature is hushed as in a midnight silence, and scarce a note is heard, saving that of the campanero and the pi-pi-yo; it is then that, oppressed by the solar heat, the birds retire to the thickest shade, and wait for the refreshing cool of evening. At sundown

the vampires, bats, and goatsuckers dart from their lonely retreat, and skim along the trees on the river's bank. The different kinds of frogs almost stun the ear with their hoarse and hollow sounding croaking, while the owl and goatsuckers lament and mourn all night long. About two hours before daybreak, you will hear the red monkey moaning as though in deep distress; the houtou, a solitary bird, and only found in the thickest recesses of the forest, distinctly articulates 'houtou, houtou,' in a low and plaintive tone, an hour before sunrise; the maam whistles about the same hour; the hannaquoi, pataca, and maroudi announce his near approach to the eastern horizon, and the parrots and parroquets confirm his arrival there. The crickets chirp from sunset to sunrise, and often during the day, when the weather is cloudy.

"Courteous reader, . . . if thy soul partakes of the ardent flame which the persevering Mungo Park's did, these outlines . . . will give thee some idea of what a noble country this is; . . . Provided thou hast but a quiet mind, little more is necessary, and the genius which presides over these wilds will kindly help thee through the rest. She will allow thee to slay the fawn, and cut down the mountain cabbage for thy support, and to select from every part of her domain whatever may be necessary for the work thou art about. . . . Though retired from the haunts of men, thou wouldest not find it solitary. The crowing of the hannaquoi will sound in thine ears like the daybreak town-clock; and the wren and the thrush will join with thee in thy matin hymn to thy Creator to thank him for thy night's rest. At noon the genius will lead thee to the troely, one leaf of which will defend thee from both sun and rain. And if, in the cool of the evening, thou hast been tempted to stray too far from thy place of abode, and art deprived of light to write down the information thou hast collected, the fire-fly, which thou wilt see in almost every bush around thee, will be thy candle. Hold it over thy pocket-book in any position which

thou knowest will not hurt it, and it will yield thee ample light.*

“So matted and interwoven are the tops of the trees above you, that the sun is not felt once all the way, saving where the space which a newly-fallen tree occupied lets in his rays upon you.

“The forest contains an abundance of wild hogs, lobbass, acouries, powisses, maams, maroudies, and waracabas, for your nourishment, and there are plenty of leaves to cover a shed, whenever you are inclined to sleep. . . . Here the finest greenheart grows, and wallaba, purple heart, siloabali, sawari, buletre, tauronira, and mora are met with in vast abundance far and near, towering up in majestic grandeur, straight as pillars, sixty or seventy feet high, without a knot or branch. . . .

“Reader, canst thou not be induced to dedicate a few months . . . and examine with thy scientific eye the productions which the vast and well-stored colony of Demerara presents to thee? . . . No doubt there is many a balsam and many a medicinal root yet to be discovered, and many a resin, gum, and oil yet unnoticed. . . . Wouldest thou be deemed enthusiastic or biassed, because thou givest it as thy opinion that the climate in these high lands is exceedingly wholesome, and the lands themselves capable of maintaining any number of settlers? In thy dissertation on the Indians, thou mightest hint that possibly they could be induced to help the settlers a little; and that finding their labours well requited, it would be the means of their keeping up a constant communication with us, which probably might be the means of laying the first stone towards their Christianity. They are a poor, harmless, inoffensive set of people, and their wandering and ill-provided way of living seems more to ask for pity from us, than to fill our heads with thoughts that they would be hostile to us.† . . . There are no huts in the way. You must bring your own cassava bread along with you,

* See p. 50.

† See p. 23.

hunt in the forest for your meat, and make the night's shelter for yourself.

"Here is a noble range of hills, all covered with the finest trees, rising majestically one above the other, on the western bank,* and presenting as rich a scene as ever the eye would wish to look on. Nothing in vegetable nature can be conceived more charming, grand, and luxuriant. . . . How the heart rejoices in viewing this beautiful landscape! when the sky is serene, the air cool, and the sun just sunk behind the mountain's top. The hayawa-tree perfumes the woods around; pairs of scarlet aras are continually crossing the river; the maam sends forth its plaintive note; the wren chants its evening song; the caprimulgus wheels in busy flight around the canoe, while 'whip-poor-will' sits on the broken stump near the water's edge, complaining as the shades of night set in. . . .

"Here the fish called pacou is very plentiful. It is perhaps the fattest and most delicious fish in Guiana. . . . You are now within the borders of Macoushia, inhabited by a different tribe of people, called Macoushi Indians, uncommonly dexterous in the use of the blow-pipe, and famous for their skill in preparing the deadly vegetable poison commonly called wourali. It is from this country that those beautiful parroquets named kessi-kessi are procured. . . . Here, too, grows the tree from which the gum elastic is got. . . .

"After walking an hour and a half, you come to the edge of the forest, and a savannah unfolds itself to the view. The finest park that England boasts falls far short of this delightful scene. There are about 2,000 acres of grass, with here and there a clump of trees, and a few branches and single trees, scattered up and down by the hand of Nature. The ground is neither hilly nor level, but diversified with moderate rises and falls, so gently running into one another that the eye cannot distinguish where they begin nor where they end, while the distant black rocks have the appearance of a herd at rest. Nearly in the middle

* Our traveller has now reached the river Essequibo.

there is an eminence, which falls off gradually on every side,—and on this the Indians have erected their huts. . . . This beautiful park of Nature is surrounded by lofty hills, all arrayed in superbest garb of trees—some in the form of pyramids, others like sugar-loaves, towering one above the other, some rounded off, and others as though they had lost their apex. . . . Here grows the tree which produces the moran, sometimes called balsam capivi. . . . This seems to be the native country of the arrowroot. Wherever you passed through a patch of wood in a low situation, there you found it growing luxuriantly.

“The Indian place you are now at. . . . The grand landscape this place affords makes you ample amends for the time you have spent in reaching it. It would require great descriptive powers to give a proper idea of the situation these people have chosen for their dwelling. . . . The hill they are on is steep and high, and full of immense rocks. The huts are not all in one place, but dispersed wherever they have found a place level enough for a lodgment. Before you ascend the hill, you see at intervals an acre or two of wood, then an open space with a few huts on it; then wood again, and then an open space, and so on, till the intervening of the western hills, higher and steeper still, and crowded with trees of the loveliest shades, closes the enchanting scene.

“At the base of the hill stretches an immense plain, which appears to the eye, on this elevated spot, as level as a bowling-green. The mountains on the other side are placed one upon the other in romantic forms, and gradually retire till they are indiscernible from the clouds in which they are involved. To the south-south-west this far-extending plain is lost in the horizon. The trees on it, which look like islands on the ocean, add greatly to the beauty of the landscape; while the rivulet’s course is marked out by the eta-trees, which follow its meanders. . . . Nature has been bountiful to [the Indian]. She has not only ordered poisonous herbs and roots to grow in the un-

bounded forests through which he strays, but has also furnished an excellent reed for his arrows, and another, still more singular, for his blow-pipe, and planted trees of an amazing hard; tough, and elastic texture, out of which he forms his bows. And in order that nothing might be wanting, she has superadded a tree which yields him a fine wax, and disseminated up and down, a plant not unlike that of the pineapple, which affords him capital bowstrings.

“On each side of *ci-devant* Dutch Guiana, most unexpected and astonishing changes have taken place. Will they raise or lower it in the scale of estimation at the Court of St. James’s? Will they be of benefit to these grand and extensive colonies?—colonies enjoying perpetual summer—colonies of the richest soil; colonies containing within themselves everything necessary for their support—colonies, in fine, so varied in their quality and situation as to be capable of bringing to perfection every tropical production; and only want the support of Government, and an enlightened governor, to render them as fine as the finest portions of the equatorial regions.

“While the traveller in the Old World is astonished at the elephant, the tiger, the lion, and the rhinoceros, he who wanders through the torrid regions of the New, is lost in admiration at the cotingas, the toucans, the humming-birds and aras. The ocean, likewise, swarms with curiosities.

“Let us now . . . journey on towards the wilds. . . . Carry nothing but what is necessary for your own comfort, and the object in view, and depend upon the skill of an Indian, or your own, for fish and game. A sheet about twelve feet long, ten wide, painted, and with loopholes on each side, will be of great service; in a few minutes you can suspend it betwixt two trees in the shape of a roof. Under this, in your hammock, you may defy the pelting shower, and sleep heedless of the dews of night. A hat, a shirt, and a light pair of trousers, will be all the raiment you require. Custom will soon teach you to

tread lightly and barefoot on the little inequalities of the ground, and show you how to pass on unwounded, amid the mantling briars. . . . Snakes, in these wilds, are certainly an annoyance, though, perhaps, more in imagination than reality; for you must recollect that the serpent is never the first to offend; his poisonous fang was not given him for conquest; he never inflicts a wound with it, but to defend existence. Provided you walk cautiously, and do not absolutely touch him, you may pass in safety close by him. As he is often coiled up on the ground, and amongst the branches of the trees above you, a degree of circumspection is necessary, lest you unwarily disturb him. Tigers are too few, and too apt to fly before the noble face of man, to require a moment of your attention. The bite of the most noxious of the insects, at the very worst, only causes a transient fever, with a degree of pain, more or less. . . . No sound or song from any of the winged inhabitants of the forest, not even the clearly pronounced 'whip-poor-will' from the goatsucker, causes such astonishment as the toll of the campanero [bell-bird]. His note is loud and clear, like the sound of a bell, and may be heard at the distance of three miles. His plumage is as white as snow. With many of the feathered race, he pays the common tribute of a morning and evening song; and even when the meridian sun has shut in silence the mouths of almost the whole of animated nature, the campanero still cheers the forest. You hear his toll, and then a pause for a minute, then another toll, and then a pause again, and then a toll, and again a pause. Then he is silent for six or eight minutes, then another toll, and so on. Actæon would stop in midchase, Maria would defer her evening song; and Orpheus himself would drop his lute to listen to him, so sweet, so novel and romantic is the toll of the pretty snow-white campanero. . . . The prodigious variety of water-fowl, on the sea-shore, has been but barely hinted at. There, and on the borders of the inland waters, in the marshes and creeks, besides

the flamingos, scarlet curlew, and spoonbills, . . . will be found greenish-brown curlews, sandpipers, rails, coots, gulls, pelicans, jabirus, nandapoas, crabiers, snipes, plovers, ducks, geese, cranes, and anhingas, most of them in vast abundance; some frequenting only the sea-coast, others only the interior, according to their different natures. . . .

“Grand is the appearance of other objects all around. Thou art in a land, rich in botany and mineralogy, rich in zoology and entomology. Animation will glow in thy looks, and exercise will brace thy frame in vigour. . . . A new stock of health will bring thee an appetite to relish the wholesome food of the chase. Never-failing sleep will wait on thee at the time she comes to soothe the rest of animated nature; and ere the sun’s rays appear in the horizon, thou wilt spring from thy hammock fresh as April lark.* Be convinced, also, that the dangers and difficulties which are generally supposed to accompany the traveller in his journey through distant regions, are not half so numerous or dreadful as they are commonly thought to be. . . .

“We will now ascend in fancy on Icarian wing, and take a view of Guiana in general. See an immense plain, betwixt two of the largest rivers in the world [Amazon and Orinoco], level as a bowling-green, save at Cayenne, and covered with trees along the coast quite to the Atlantic wave, except where the plantations make a little vacancy among the foliage.

“Though nearly in the centre of the torrid zone, the sun’s rays are not so intolerable as might be imagined, on account of the perpetual verdure and refreshing north-east breeze. See what numbers of broad and rapid rivers intersect it in their journey to the ocean, and that not a stone or a pebble is to be found on their banks, or in any part of the country, till your eye catches the hills of the interior. How beautiful and magnificent are the lakes in the heart of the forests, and how charming the forests themselves, for miles

* See p. 22.

after miles on each side of the rivers ! How extensive appear the savannahs, or natural meadows, teeming with innumerable herds of cattle, where the Portuguese and Spaniards are settled, but desert as Saara, where the English and Dutch claim dominion ! How gradually the face of the country rises ! See the sand-hills all clothed in wood, first emerging from the level, then hills a little higher, rugged with bold and craggy rocks, peeping out from amongst the most luxuriant timber. Then come plains and dells, and far-extending valleys, arrayed in richest foliage ; and beyond them mountains piled on mountains, some bearing prodigious forests, others of bleak and barren aspect. Thus your eye wanders on, over scenes of varied loveliness and grandeur, till it rests on the stupendous pinnacles of the long-continued Cordilleras de los Andes, which rise in towering majesty, and command all America. . . . Shouldst thou ever wander through these remote and dreary wilds, forget not to carry with thee bark, laudanum, calomel, and jalap, and the lancet. There are no druggists' shops here, nor sons of Galen to apply to in time of need. Never go encumbered with many clothes. A thin flannel waistcoat, under a check shirt, a pair of trousers, and a hat were all my wardrobe : shoes and stockings I seldom had on. In dry weather they would have irritated the feet, and retarded me in the chase of wild beasts, and in the rainy season they would have kept me in a perpetual state of damp and moisture. I eat moderately, and never drink wine, spirits, or fermented liquors in any climate. This abstemiousness has . . . befriended me in many a fit of sickness, brought on by exposure to the noonday sun ; to the dews of night, to the pelting shower, and unwholesome food. . . . Time and experience has convinced me that there is not much danger in roving amongst snakes and wild beasts, provided only that you have self-command. You must never approach them abruptly ; if so, you are sure to pay for your rashness.

[The Indians] "live in small hamlets, which consist of a few huts, never exceeding twelve in number. These huts are always in the forest, near a river or some creek. They are open on all sides (except those of the Macoushi), and covered with a species of palm-leaf. Their principal furniture is the hammock. It serves them both for chair and bed. It is commonly made of cotton, though those of the Warows are formed from the eta-tree. At night they always make a fire close to it. The heat keeps them warm, and the smoke drives away the mosquitoes and sandflies. You sometimes find a table in the hut; but it was not made by the Indians, but by some negro or mulatto carpenter.

"They cut down about an acre or two of the trees which surround the huts, and there plant pepper, papaws, sweet and bitter cassada, plantains, sweet potatoes, yams, pineapples, and silk grass. Besides these, they generally have a few acres in some fertile part of the forest for their cassava, which is as bread to them. They make earthen pots to boil their provisions in, and they get from the white men flat, circular plates of iron, on which they bake their cassava. They have to grate the cassava before it is pressed, preparatory to baking; and those Indians who are too far in the wilds to procure graters* from the white men, make use of a flat piece of wood, studded with sharp stones. They have no cows, horses, mules, goats, sheep, or asses. The men hunt and fish, and the women work in the provision-ground and cook their victuals. . . . Fevers very seldom visit the Indian hamlets. . . . In finding their way through these pathless wilds, the sun is to them what Ariadne's clue was to Theseus. When he is on the meridian, they generally sit down, and move onwards again as soon as he has sufficiently declined to the west; they require no other compass. When in chase, they break a twig on the bushes as they pass by every three or four hundred paces, and this often prevents them from

* See Appendix A, p. 143.

losing their way on their return. . . . Did my pen, gentle reader, possess descriptive powers, I would here give thee an idea of the enchanting scenery of the Essequibo. . . . Nothing could be more lovely than the appearance of the forest on each side of this noble river. Hills rose on hills in fine gradation, all covered with trees of gigantic height and size. Here their leaves were of a lovely purple, and there of the deepest green. Sometimes the cara-cara extended its scarlet blossoms from branch to branch, and gave the tree the appearance as though it had been hung with garlands. This delightful scenery of the Essequibo made the soul overflow with joy, and caused you to rove in fancy through Fairyland. . . . Just within the forest . . . we cleared a place of brushwood, suspended the hammock from the trees, and then picked up enough of decayed wood for fuel. The Indian found a large land-tortoise, and this, with plenty of fresh fish which we had in the canoe, afforded a supper not to be despised. . . .

"The Indian took off into the woods, and brought back a noble supply of game. The rest of us went into the canoe, and proceeded up the river to shoot fish. We got even more than we could use. . . . We went on the sandbank to look for [turtles'] eggs, as this was the breeding season. . . . Wherever a portion of the sand seemed smoother than the rest, there was sure to be a turtle's nest. On digging down with our hands, about nine inches deep, we found from twenty to thirty white eggs;—in less than an hour we got above 200. . . . At midnight two of our people went to this sandbank. . . . The turtle had advanced on to the sand to lay their eggs, and the men got betwixt them and the water; they brought off half a dozen very fine and well-fed turtle. . . . On this sandbank, close to the forest, we found several guanas' nests, but they had never more than fourteen eggs apiece. . . .

"It is commonly reported, and I think there is no reason to doubt the fact, that when Demerara and

Essequibo were under the Dutch flag, there were mines of gold and silver opened near to the river Essequibo.* The miners were not successful in their undertaking, and it is generally conjectured that their failure proceeded from inexperience. Now, when you ascend the Essequibo, some hundred miles above the place where these mines are said to be found, you get into a high, rocky, and mountainous country. It remains to be yet learnt whether this portion of Guiana be worth looking after with respect to its supposed mines. . . .

“If ever there should be a great demand for large supplies of gum elastic, commonly called india-rubber, it may be procured in abundance far away in the wilds of Demerara and Essequibo.”

* “A little westward of Kay-tan [a Carribbee settlement], in 1721, the Dutch made an attempt to search for silver, but the little ore discovered would not pay the expenses.”—*Schomburgk's "Tours."*

CHAPTER V.

I do not consider that any apology is due for not confining myself entirely to writers whose remarks apply specifically to British Guiana. The country between the Amazon and the Orinoco presents very little variety either in soil, natural productions, or climate. What is true of one portion of it, is, to a considerable extent, true of the whole. Where travellers in British Guiana have omitted to notice any matter of interest, therefore, the deficiency will be supplemented from other writers. Not only so, but I have thought fit to corroborate the evidence of the former by the testimony of the latter. For this purpose I produce first the Baron von Sack, who speaks of Surinam :—

“I could not help looking towards those immense forests where so few travellers of civilised nations have yet penetrated. What a treasure must there be hidden in all the varieties of the creation! . . . Since the cacao and the indigo, together with so many valuable balms and powerful medicines, have already been discovered in these regions, what may not be expected of posterity, when men of various talents and of active minds shall have completely penetrated into these immense forests, hitherto unexplored? . . .

“In this country the degree of atmospheric heat differs very little all the year, and therefore the body is not affected by change. In the course of twenty-four hours the sun is only half the time in the horizon, and has no more than half an hour's declension throughout the year; yet, when the heat might naturally be expected to become most powerful, the sea breezes set in, and last from about ten in the morning till five in the afternoon, which effect seems to arise from the diurnal

motion of the globe, and the rarefaction of the air produced by the great power of the sun pressing it from east to west. These tropical breezes passing over the great ocean, and attracting much of the saline acid, makes them particularly cooling, and preferable to the European zephyrs, which are very inconstant and fluttering, whilst here we have a stream of delightful air constantly flowing from the heavens, and refreshing all Nature in an equable course. . . . With regard to the European vegetables, different species are cultivated at Surinam, particularly on sugar plantations, where the beds are manured with trash of the sugarcane; that is, the remains after the extraction of the sugar;* and the young plants are shaded under baskets, so as to admit the fresh air to them. The cauliflower, brocoli, cabbage, carrot, and French beans grow perfectly well here, and the asparagus, likewise, is said to be good. . . . The region which formed the original habitation of the human species. . . . was probably one bearing a strong resemblance to Guiana, where an eternal summer reigns; where delicious fruits and wholesome roots spontaneously and plentifully grow; where man, not yet instructed to make a net, has no more to do than to bruise the hiarra root, and drop it into the water, and a number of fish soon become intoxicated, and float motionless on the water, to be taken by him. If he finds himself in the midst of the woods, and does not know yet how to dig a well to quench his thirst, he has only to break a sort of wild vine which grows plentifully in those forests, and a cool and clear water drops abundantly from it. As soon as he begins to exercise his talents, he invents the bow and arrow, and whenever he is not inclined to pursue his game at a great distance, he can sit down, and imitate the cries of different quadrupeds that go in droves, or birds which fly in flocks, and soon some of them appear, at which he can easily take an aim. No sooner does he begin to cultivate the land than the Indian corn is produced with very little trouble; and

* Commonly called "megass."

no biting winds destroy the blossoms of the fruit-trees which he plants around his habitation: he makes from large gourds his bottles, and from the calabas-tree his plates. Round the branches of the cacao palm-tree winds a strong web, which not only serves him for his first covering, but the crossing filaments of which it consists give him the idea of inventing cloth, for which the materials, already prepared, hang down in large buds from the cotton shrub. The great bounty of Nature to the human species is there so visible, that among the many different Indian tribes which have been discovered in Guiana, it is known that they all believe in one supreme God, who has created those blessings for them."

The following apposite extracts are from a little work called "Humboldt's Travels in South America:"—

"The cabins of the mestizoes dwelling in these parts were found placed in the midst of small enclosures, containing bananas, papayas, sugar-canes, and maize. Humboldt remarks, that the small extent of their cleared spots would surprise us, if we did not recollect that an acre, planted with banana-trees, yields nearly twenty times the quantity of aliment which the same space would give if sown with grain. This superior fecundity of Nature in the torrid zone prevents the spreading of a population over a wide space. In Europe, the wheat and other kinds of grain, necessary for the food of its inhabitants, cover a vast extent of country; and the cultivators necessarily come into contact with each other. In the torrid zone the reverse is the case; there the fertility of the soil corresponds with the heat and humidity of the atmosphere, and man avails himself of those vegetables which rise most rapidly, and yield most abundantly. Thus, a numerous population finds ample subsistence within a narrow space, and the tracts of cultivated land are separated from each other by the intervention of large wastes. Even in the neighbourhood of the most populous cities of equinoctial America, the surface of the earth is bristled with forest, or covered with a thick sward

which the ploughshare has never divided; plants of spontaneous growth predominate by their luxuriance and their masses over those that are cultivated, and determine the character and aspect of the country. To a European traveller, unmindful of this distinction, or not knowing how small an extent of soil will suffice in those regions for the maintenance of a family, a populous province might seem almost uninhabited. . . . The lake is embellished with fifteen beautiful islands; the largest of them, Burro, is two miles in length. It was inhabited by some families of mestizoes, who were occupied in rearing goats, and who seldom visited the neighbouring shore. To these simple men the lake appeared of immense extent; for their subsistence they had plantains, cassava, milk, and a little fish. A hut, constructed of reeds; hammocks woven with the cotton which the neighbouring fields produced; a large stone on which they made their fire; the ligneous fruit of the tutuma, in which they drew water, constituted their domestic establishment."

Let us now accompany Mr. Wallace to the Amazon.

"Farinha is a preparation from the root of the mandioca [bitter cassava]. . . . of which tapioca is also made; it looks something like coarsely-ground peas, or perhaps more like sawdust, and when soaked in water or broth is rather glutinous, and is a very nutritious article of food. This, with a little salt fish, Chili peppers, bananas, oranges, and assai [a preparation from the fruit of a palm], forms almost the entire subsistence of a great part of the population of the city [Para].

"*July 4th.*—The vegetation now improved in appearance as the dry season advanced. Plants were successively budding and bursting their blossoms, and bright green leaves displaced the half-withered ones of the past season. The climbers were particularly remarkable, as much for the beauty of their foliage as for their flowers. Often two or three climb over one tree or shrub, mingling in the most perplexing, though elegant confusion, so that it is a matter of much diffi-

culty to decide to which plant the different blossoms belong, and should they be high up, it is impossible. A delicate white and a fine yellow convolvulus were now plentiful; the purple and yellow trumpet flowers were still among the most showy; and some noble thick-leaved climbers mounted to the tops of trees, and sent aloft bright spikes of scarlet flowers. . . . A few forest trees were also in blossom; and it was truly a magnificent sight to behold a tree covered with one mass of flowers, and to hear the deep, distant hum of millions of insects gathered together to enjoy the honeyed feast. But . . . it is only over the outside of the great dome of verdure exposed to the vertical rays of the sun that flowers are produced, and on many of these trees there is not a single blossom to be found at a less height than 100 feet. The whole glory of these forests could only be seen by sailing gently in a balloon over the undulating flowery surface above: such a treat is perhaps reserved for the traveller of a future age. . . . It seems somewhat extraordinary that the greater part of our timber should be brought from countries where the navigation is stopped nearly half the year by ice, and where the rivers are at all times obstructed by rapids and subject to storms, which render the bringing down of the rafts a business of great danger; where, too, there is little variety of timber, and much of it of such poor quality as only to be used on account of its cheapness. . . . The banks are clothed with virgin forests, containing timber trees in inexhaustible quantities and of such countless varieties that there seems no purpose for which wood is required, but one of a fitting quality may be found. In particular there is cedar. . . . It is a wood which works nearly as easy as pine, has a fine aromatic odour, and is equal in appearance to common mahogany, and is therefore well adapted for doors and all internal furnishings of houses; . . . for centuries the woodman's axe has been the pioneer of civilisation in the gloomy forests of Canada, while the treasures of this great and fertile country are unknown. . . .

" In the evening, at sunset, the scene was lovely. The groups of elegant palms, the large cotton-trees relieved against the golden sky, the negro houses surrounded with orange and mango trees, the grassy bank, the noble river, and the background of eternal forest, all softened by the mellowed light of the magical half-hour after sunset, formed a picture indescribably beautiful. . . .

[Iroquera.] " There were several families living here, yet they had not a house among them, but had chosen a nice clear space under some trees, between the trunks and from the branches of which they hung their redes [hammocks]. Numbers of children were rolling about naked in the sand, while the women and some of the men were lounging in their hammocks. Their canoes were pulled up on the beach, their guns were leaning against the trees, a couple of large earthen pots were on the fire, and they seemed to possess, in their own estimation, every luxury that man can desire. . . . It is only a summer encampment, during which season they collect seringa [indiarubber], grow a little cotton, mandioca, and maize, catch fish and hunt. All they wanted of us was ammunition and caxaça [rum]. . . .

" A short distance from the shore the land rises, and most of the houses are situated on the slope, with the ground cleared down to the river. Some of the places are kept in tolerable order, but there are numbers of houses and cottages unoccupied and in ruins, with land, once cultivated, overgrown with weeds and brushwood. Rubber-making and gathering cacao and Brazil nuts, are better liked than the regular cultivation of the soil. In the districts we passed through, sugar, cotton, coffee, and rice might be grown, in any quantity and of the finest quality. The navigation is always safe and uninterrupted, and the whole country is so intersected by igaripês [creeks] and rivers, that every estate has water-carriage for its productions. But the indolent disposition of the people and the scarcity of labour will prevent the capabilities of this

fine country from being developed, until European or North American colonies are formed. There is no country in the world where people can produce for themselves so many of the necessities and luxuries of life. Indian corn, rice, mandioca, sugar, coffee, and cotton, beef, poultry, and pork, with oranges, bananas, and abundance of other fruits and vegetables, thrive with little care. With these articles in abundance, a house of wood, calabashes, cups and pottery of the country, they may live in plenty, without a single exotic production. And then what advantages there are in a country where there is no stoppage of agricultural operations during winter, but where crops may be had, and poultry reared, all the year round; where the least possible amount of clothing is the most comfortable, and where a hundred little necessities of a cold region are altogether superfluous. With regard to the climate, I have spoken already; and I repeat that a man can work as well here as in the hot summer months in England, and that if he will only work three hours in the morning and three in the evening, he will produce more of the necessities and comforts of life than by twelve hours daily labour at home. . . .

"Insects were now more abundant than ever, and new kinds were met with almost every day. Lovely little butterflies, spangled with gold, or glittering with the most splendid metallic tints, hid themselves under leaves, or expanded their wings in the morning sun; while the larger and more majestic kinds flew lazily along the shaded forest paths. . . .

"About ten o'clock we reached the mouth of the igaripè, or small stream, we were to ascend. . . . We stayed for breakfast in a little clear space under a fine tree, and I enjoyed a cup of coffee and a little biscuit, while the men luxuriated on fish and farinha. We then proceeded up the stream, which was at its commencement about 200 yards wide, but soon narrowed down to fifty or eighty. I was much delighted with the beauty of the vegetation, which surpassed anything I had seen before; at every bend of the

stream some new object presented itself—now a huge cedar hanging over the water, or a great silk-cotton tree standing like a giant above the rest of the forest. The graceful assái palms occurred continually, in clumps of various sizes, sometimes raising their stems 100 feet into the air, or bending in graceful curves till they almost met from the opposite banks. The majestic muruti [eta] palm was also abundant, its straight and cylindrical stems, like Grecian columns, and with its immense fan-shaped leaves and gigantic bunches of fruit, produced an imposing spectacle. Some of these bunches were larger than any I had before seen, being eight or ten feet in length, weighing probably two or three hundredweight each, and consisted of several bushels of a large reticulated fruit. These palms were often clothed with creepers, which ran up to the summits, and there put forth their blossoms. Lower down, and on the water's edge, were numerous flowering shrubs, often completely covered with convolvuluses, passion flowers, or bignónias. Every dead or half-rotten tree was clothed with parasites of singular forms, or bearing beautiful flowers, while smaller palms, curiously-shaped stems, and twisting climbers, formed a background in the interior of the forest.

“Nor were there wanting animated figures to complete the picture. Brilliant scarlet and yellow macaws flew continually overhead, while screaming parrots and paroquets were passing from tree to tree in search of food. Sometimes from a branch over the water were suspended the hanging nests of the black and yellow troupial, into which those handsome birds were continually entering. The effect of the scene was much heightened by the river often curving to one side or the other, so as to bring to view a constant variety of objects. At every bend we would see before us a flock of the elegant white heron, seated on some dead tree overhanging the water; but as soon as we came in sight of them they would take flight, and on passing another bend we would find them again perched in front of us, and so on for a considerable distance. On many of the flowering

shrubs gay butterflies were settled, and sometimes on a muddy bank a young alligator would be seen comfortably reposing in the sun. . . .

"Before daybreak I had my gun upon my shoulder, eager to make an attack upon the ducks and other aquatic birds which roamed about the lake. I soon found plenty of them, and my gun being loaded with small shot, I killed seven or eight at the first fire. They were very pretty little birds, with metallic green and white wings, and besides forming good specimens, provided us with an excellent breakfast. After the first discharge, however, they became remarkably shy, so I went after roseate spoonbills, white herons, and long-legged plovers, which I saw on the other side. . . .

"The next morning we proceeded on our journey, and soon passed the last house, and entered upon the wild, unbroken, and uninhabited virgin forest. The stream was very narrow and very winding, running with great rapidity round the bends, and often much obstructed by bushes and fallen trees. The branches almost met overhead, and it was as dark, and gloomy, and silent as can be imagined. In these sombre shades a flower was scarcely ever to be found. A few of the large butterflies (morphos) were occasionally seen flitting over the water or seated upon a leaf or the banks, and numerous green-backed kingfishers darted along before us. Early in the afternoon we found a little cleared place where hunters were accustomed to stay, and here we hung up our hammocks, lit our fire, and prepared to pass the night. After an excellent supper and some coffee, I lay down in my hammock, gazing up through the leafy canopy overhead, to the skies, spangled with brightly shining stars, from which the fireflies, flitting among the foliage, could often hardly be distinguished. . . . They seemed attracted by the fire, to which they came in numbers; by moving one over the lines of a newspaper I was enabled to read it. . . . The constant hard exercise, pure air, and good living, notwithstanding the intense heat, kept us in the most perfect health, and I have never altogether enjoyed myself so much. . . .

There were two other rooms in the house where I lived, inhabited by three families. The men generally wore nothing but a pair of trousers, the women only a petticoat, and the children nothing at all. They all lived in the poorest manner, and at first I was quite puzzled to find out when they had their meals. In the morning they would each have a *cuya* [calabash] of *mingau* [gruel], then about mid-day they would eat some dry *farinha* cake or a roasted yam; and in the evening more *mingau* of *farinha* or *pacovas* [bananas]. I could not imagine that they really had nothing else to eat, but at last was obliged to come to the conclusion that various preparations of *mandioca* and water formed their only food. About once a week they got a few small fish or a bird, but then it would be divided among so many as only to serve as a relish to the cassava bread. My hunter never took anything out with him but a bag of dry *farinha*, and after being away fourteen hours in his canoe, would come home and sit down in his hammock, and converse as if his thoughts were far from eating, and then, when a *cuya* of *mingau* was offered him, would quite contentedly drink it, and be ready to start off before daybreak the next morning. Yet he was stout and jolly looking as John Bull himself, fed daily on fat beef and mutton.

"I had now so thoroughly got into the life of this part of the country, that, like everybody else here, I preferred fish to every other article of food. One never tires of it; and I must again repeat that I believe there are fish here superior to any in the world.

"When I consider the small amount of labour required in this country to convert the virgin forest into green meadows and fertile plantations, I almost long to come over with half-a-dozen friends, disposed to work, and enjoy the country, and show the inhabitants how soon an earthly paradise might be created, which they have never even conceived capable of existing. It is a vulgar error, copied and repeated from one book to another, that in the tropics the luxuriance of the vegetation overpowers the efforts of man. Just the reverse is

the case: nature and the climate are nowhere so favourable to the labourer; and I fearlessly assert, that here the 'primeval' forest can be converted into rich pasture and meadow land, into cultivated fields, gardens, and orchards, containing every variety of produce, with half the labour, and, what is of far more importance, in less than half the time that would be required at home, even though there we had clear, instead of forest ground, to commence upon. It is true that ground once rudely cleared, in the manner of the country, by merely cutting down the wood and burning it, as it lies, will, if left to itself, in a single year, be covered with a dense and shrubby vegetation; but if the ground is cultivated and roughly weeded, the trunks and stumps will so have rotted in two or three years, as to render their complete removal an easy matter, and then a fine crop of grass succeeds; and, with cattle upon it, no more care is required, as no shrubby vegetation again appears. Then, whatever fruit trees are planted will reach a large size in five or six years, and many of them give fruit in two or three. Coffee and cacao both produce abundantly with the minimum of attention; orange and other fruit trees are never done anything to, but, if pruned, would no doubt yield fruit of a superior quality, in greater quantity. Pine-apples, melons, and water melons are planted; when ripe the fruit is gathered, there being no intermediate process whatever. Indian corn and rice are treated in nearly the same manner. Onions, beans, and many other vegetables thrive luxuriantly. The ground is never turned up, and manure never applied; if both were done, it is probable that the labour would be richly repaid. Cattle, sheep, goats and pigs may be had to any extent; nobody ever gives them anything to eat, and they always do well. Poultry of all kinds thrive. Molasses may be made in any quantity, for cane put into the ground grows, and gives no trouble; and I do not see why the domestic process used in the United States for making maple sugar* should not be applied here."

* The following description of an important process of manufacturing maple sugar is given by a gentleman who gained the first premium at the

"Now, I unhesitatingly affirm, that two or three families, containing half-a-dozen working and industrious men and boys, and being able to bring a capital in goods of £50, might, in three years, find themselves in the possession of all I have mentioned. Supposing them to get used to the mandiocca and Indian corn bread, they would, with the exception of clothing, have no one necessary or luxury to purchase: they would be abundantly supplied with pork, beef and mutton, poultry, eggs, butter, milk and cheese, coffee and cacao, molasses and sugar; delicious fish, turtles and turtles' eggs, and a great variety of game, would furnish their tables with constant variety, while vegetables would not be wanting, and fruits, both cultivated and wild, in superfluous abundance, and of a quality that none but the wealthy of our land can afford. Oranges and lemons, figs and grapes, melons and water melons, jack fruits, custard apples, pine apples, cashews, alligator pears, and mammee

State fair at Rochester, in 1843:—"In the first place, I make my buckets, tubs, and kettles all perfectly clean. I boil the sap in a potash kettle, set in an arch in such a manner that the edge of the kettle is defended all round from the fire. I boil through the day, taking care not to have anything in the kettle that will give colour to the sap, and to keep it well skimmed. At night I leave fire enough under the kettle to boil the sap nearly or quite to syrup by the next morning. I then take it out of the kettle, and strain it through a flannel cloth into a tub, if it is sweet enough; if not, I put it in a caldron kettle, which I have hung on a pole in such a manner that I can swing it on or off the fire at pleasure, and boil it till it is sweet enough, and then strain it into the tub, and let it stand till the next morning. I then take it and the syrup in the kettle, and put it altogether into the caldron and sugar it off. I use, to clarify say 100 lbs. of sugar, the whites of five or six eggs well beaten, about one quart of new milk, and a spoonful of saleratus, all well mixed with the syrup before it is scalding hot. I then make a moderate fire directly under the caldron, until the scum is all raised; then skim it off clean, taking care not to let it boil so as to rise in the kettle before I have done skimming it. I then sugar it off, leaving it so damp that it will drain a little. I let it remain in the kettle until it is well granulated. I then put it into boxes made smallest at the bottom, that will hold from fifty to seventy pounds, having a thin piece of board fitted in, two or three inches above the bottom, which is bored full of small holes, to let the molasses drain through, which I keep drawn off by a tap through the bottom. I put on the top of the sugar, in the box, a clean damp cloth; and over that, a board, well fitted in, so as to exclude the air from the sugar. After it has done draining, or nearly so, I dissolve it and sugar it off again; going through with the same process in clarifying and draining as before."—*Simmonds's "Commercial Products of the Vegetable Kingdom."*

apples are some of the commonest, whilst numerous palm and other forest fruits furnish delicious drinks, which everybody soon gets very fond of. Both animal and vegetable oils can be procured in abundance for light and cooking. And then, having provided for the body, what lovely gardens and shady walks might not be made! How easy to construct a natural orchid house, beneath a clump of forest trees, and collect the most beautiful species found in the neighbourhood! What lovely climbers abound to train over arbours, or up the walls of the house!

‘England, my heart is truly thine,—
My loved, my native earth!’

But the idea of the glorious life which might be led here, free from all the money matter cares and annoyances of civilisation, make me sometimes doubt, if it would not be wiser to bid thee adieu for ever, and come and live a life of ease and plenty in the Rio Negro.”

CHAPTER VI.

MR. WALLACE was induced to make his voyage by perusing the narrative of a similar undertaking by a citizen of the United States—Mr. W. H. Edwards—a few years before. Let us hear what he has to say.

“Arrived at our destination, nought appeared but a house in the distance, almost concealed by shrubbery, and everywhere else a tangled bush, with a few tall trees. . . . A white man came to the door, and seemed disposed to be communicative; so we mustered our forlorn stock of Portuguese, and soon made considerable advances in his graces. He insisted upon our taking a cup of coffee, and, after a little nodding and comprehending on both sides, nothing would do but we must add to coffee, fish and farinha—fresh fish, too, and of his own catching, and none the less agreeable, doubtless, for being presented to us by his pretty wife. After breakfast our friend sent out to the orange tree, and soon brought us a brimming goblet of orangeade; and, finally, before our departure, he had a number of bread-fruits brought in, and the extracted seeds, much like chestnuts, roasted, with which he crammed our pockets. Verily, thought we, if this is the custom of the country, and the mere fact of one’s being a stranger is a passport to such hospitality, and a sufficient apology for powder-smutted faces and ragged garments, there is some little good left in the world yet. Here was this man, with so generous heart, really one of the largest squatters in the neighbourhood, without a vestige of any sort of cultivation upon his premises, and evidently enough depending for his support upon the fish he might catch in the stream; he would have felt offended had we offered to pay for our entertainment, so we did what we

could by slipping some mementoes into the hand of a bright-eyed young Apollo, who was loitering about with the freedom of a wild colt. . . .

"We were always out as early as possible in the morning, for, besides that it was far the pleasantest part of the day, there were always birds enough by the water-side to attract one fond of a gun. The morning of the 9th was ushered in by a brace of discharges at a flock of parrots, and immediately after down dropped a darter.

. . . . About noon, discovering a sitio [estate] we turned in, hoping to obtain some fish for our men, who grumbled mightily at their farinha diet. There were a couple of girls and some children in the house, and they seemed somewhat surprised at our errand, for they had not enough to eat themselves. The poor girls did look miserably, but poverty in such a country was absurd.

. . . . We were now in the great cacao region, which for an extent of several hundred square miles borders the river. . . . Three years after planting, the trees yield, and three after require little attention, or rather receive not any. . . . The cacao trees yield two crops annually;—excepting in harvest time, the proprietors have nothing to do but lounge in their hammocks.

"Villa Nova. . . . We were invited to the house of Senhor Bentos. . . . Its framework was of rough poles from the forest, and these, within and without, were plastered with brown clay. The floor was of the same material, and the roof was of palm leaves.

. . . . From the outer door, a broad hall crossed the house, and this, being used as a dining-room, was occupied by a long table, upon either side of which was a four-legged bench. From the hall, upon each side, opened a small chamber, one used as the sleeping apartment of the family, and the other in which we were swinging, the Senhor's especial parlour, or bedroom, as the case might be. In this was a large window, closed entirely by a shutter. The whole structure, to our ideas, was rather comfortless; but, under the equator, that is of small consequence, and sufficient comfort is centred

in a hammock to atone for its absence in everything else.

"Our time, heretofore, had passed most pleasantly. The skies had favoured, and those of us who were inclined, spent our days upon the cabin top, shielded from the boards by a comfortable rug, and shaded from the sun, if need were, by umbrellas. But the sun's heat was rarely inconvenient and tempered by fresh breezes. Coasting close in shore there was always matter for amusement; in the morning and evening, multitudes of birds, and, at all hours, enchanting forests or beautiful flowers. At night, we preferred the open air to the confinement of the cabin, and never wearied in admiring the magnificence of the skies, or in tracing the fantastic shapes that were mapped out upon them in a profusion inconceivable to those who are only acquainted with the skies of the Northern hemisphere. . . . This increased brilliancy of the tropical skies is owing to the purity of the atmosphere, which is absolutely free from those obscuring, murky vapours that deaden light in other latitudes. The sky itself is of the intensest blue, and the moon seems of increased size and kindlier effulgence. For one star at the north, myriads look down with a calm, clear light, and great part of the vault is as inexplicable as the Milky Way. Most beautiful in appearance, and interesting from association, is the Southern Cross, corresponding with the Great Bear of the North. . . . As the sun always sets about six o'clock, we had long evenings. . . .

"Serpe was a pretty place . . . and the people of Serpe were a happy people, and we almost wished that our names were in their parish register. The river teemed with the best of fish, and half an hour's pleasure would supply the wants of a week. Farinha grew almost spontaneously, and fruits quite so. The people bartered with passing boats for whatever else they might require, and lived their lives out like a summer's day, knowing nothing of the care and trouble, so busy in the world around them, and happy as language could express. With an income of a hundred dollars a man

would be a nabob in Serpa, as rich as with a hundred thousand elsewhere. . . . We heard one day that a peixe boi, or cowfish [manati] had just arrived in a montaria [tent-boat], and was lying upon the beach. . . . These curious animals . . . are to the people what periecu* is below, being, like that fish, cut into slabs and salted. . . . These animals . . . subsist upon the grass that lines the shores. When thus feeding they are lanced. . . . The turtles are a still greater blessing to the dwellers upon the upper rivers. . . . During the summer they constitute a great proportion of the food of the people. . . .

"The want of emigrants from other countries, and of an efficient labouring class among its population, are the great obstacles to the permanent welfare of Northern Brazil. It never was the policy of Portugal to encourage emigration excepting from her own territory, and although by the indomitable enterprise of her sons she secured to herself the finest empire in the world, yet for want of other assistance, this empire is impoverished, and the millions of square miles that should now be teeming with wealth are entirely unproductive. . . .

"The Brazilian Government offers great inducement to emigrants, and yet these are more than neutralised by disabilities. . . .

"Land is free of cost, and upon any vacant section a man may settle, with the proprietorship of at least a square league, and as much more as he really requires. Moreover, any new improvement in tools or machinery may be introduced free of duties.

* "I succeeded in procuring here a small quantity of the pirarucu of the Brazilians, or Warapaima of the Macusis (dudis gigas); its flesh, dried and salted, forms one of the chief articles of trade of the rivers Negro and Solimoes. This large fish, which reaches a length of twelve feet, is scarcely known to naturalists; its scales are of a considerable size and of a beautiful crimson, whence its name of pirarucu, or red fish, in the lingua geral. A great deal of this fish dried is exported to Para, and when the river is low a handsome profit is made; it here costs from two to three milreis, or about twelve shillings the arroba of thirty-three pounds; this fish is also plentiful in the Rupununi, and one is surprised that the colonists do not turn it to account and carry it for sale to Demerara; the pirarucu is usually taken by a number of small boats armed with harpoons, which drive it among the shallows, there it falls an easy prey."—Schomburgk's "*Journey to Esmeralda*."

"The ground is easily cleared, as the roots of the trees do not extend far beneath the surface, and the efforts of man are further aided by causes attendant upon the clime. The soil is of the greatest fertility, and sugar-cane, rice, coffee, annatto, cotton, cacao, and a hundred other products, richly repay the labour bestowed upon their cultivation; while from the forests are obtained gums and drugs—all yielding a revenue. Almost everything grows to hand that man requires; living is cheap, and the climate delightful. . . .

"It seems singular that directly under the equator, where, through a clear atmosphere, the sun strikes vertically upon the earth, the heat should be less oppressive than in the latitude of New York. This is owing to several causes. The days are but twelve hours long, and the earth does not become so intensely heated as where they are sixteen. The vast surface of water constantly cools the air by its evaporation, and removes the irksome dryness that in temperate regions renders a less degree of heat insupportable. And, finally, the constant winds blowing from the sea refresh and invigorate the system. . . .

"The novelty and beauty of the country, as well as the luxury of the climate, afford sufficient inducements to the invalid for seeking both health and pleasure. . . . While its trees and flowers, birds, and insects offer exhaustless resources for diverting the mind and promoting the bodily exercise necessary to a recovery of the health. . . .

"As for medicines, we took out a well-filled chest, and, excepting for one or two doses of calomel, never opened it on our own account."

Mr. Montgomery Martin, in his "History of the West Indies," speaking of British Guiana, says:—"The coast lands of the colony . . . [are] most particularly adapted to the cultivation of sugar, cotton, and plantains, to which it is mainly devoted; nor does there exist in the known world a soil possessed of such amazing richness and fertility. . . . Interior

mountains. . . . Vast quantities of iron are met with in the mountains. . . . Veins of quartz are very common traversing the great masses of granite. . . . Of a very pure white clay there are immense masses forming the high banks of the Essequibo above the falls, which would probably prove a valuable article in the manufacture of stoneware and porcelain, as would also the huge blocks of milk-white quartz found in various places. . . . Rock crystal is found upon several mountains of Demerara. . . .

"As regards geological science, British Guiana presents a wide field for the geologist, and, in reference to the agriculturist, a great diversity of soil; the three leading features of which are, first, the clayey, alluvial soil of the coast, extending eight to ten miles inland; second, hills of silicious sand or gravel, which, with intervening fertile savannahs, extend to the falls, sixty miles inland; third, a rich primitive soil; and lastly, a mountainous country, with divers coloured ochres, indurated clays, and various mixtures of loamy earth and vegetable mould, on beds of granite to a vast extent; all affording food, and the means of obtaining every necessary and comfort of life, to the hand of the industrious and skilful emigrant.

"According to Mr. Hillhouse, who has repeatedly visited the interior, the climate of the region inhabited by the Indians is much more salubrious than that of the coast; though, approaching nearer to the line, its superior elevation causes a decrease of temperature, and the surface of the earth is always kept cool from the thick shade of the forest with which it is universally covered. . . . Beyond the influx of the tide the banks of the river are so proverbially healthy that, were the population ten times more numerous than it is, there would be little employment for a physician.

"As we approach the sand-hills of the interior, the natural drainage is so perfect, and the torrents of fresh water supplied by the creeks form so strong a current, that all impurities are quickly drained from the valleys, and the surface water is instantly absorbed by the sands.

. . . There is no doubt that, if the hand of cultivation reached to the hills of the interior, and a few artificial improvements were added to the advantages of local situation, the climate of the Indians would be the most healthy and agreeable of any within the tropics—with fish, flesh, fowl, and vegetables in abundance, pure water, no fevers, and no mosquitoes.

“No part of the earth is richer in vegetation than Guiana. The most careless observer is struck with astonishment on beholding the magnificent forests and splendid verdure of the South American continent, where every variety of timber flourishes in inexhaustible profusion, and each dye and spice that ministers to commerce or health, scarcely requires the industry of man for its production. . . .

“The Indian, having no inducement to carry on trade or commerce, cultivates during three or four months as much provision as is necessary for the consumption of his family during the year. The rest of the time is spent in hunting, fishing, visiting, drinking, and dancing. . . . British Guiana offers a wide and fruitful arena for the industry of the emigrant, the enterprise of the merchant, and the science of the geologist and natural philosopher. Millions of acres of fertile land, now lying waste, are adapted to the cultivation of every tropical product of which the mother country stands in need. Cotton, tobacco, opium, silk, pepper, rice, indigo, timber, drugs, dyes, and spices, may be raised and exported, to an incalculable extent, with benefit to all who engage in these pursuits.”

Our next author is of earlier date, following Pinckard in order of time. Notwithstanding many shrewd reflections, Mr. Bolingbroke's book is decidedly prosy. It will not be a matter of regret, therefore, that our extracts from that source are limited.

“Emolument is not the inducement for attempting this statistical account; but a wish of displaying the importance of the settlements now possessed by the British along the northern coast of South America.

They are undervalued; and were abandoned at the peace of Amiens with a levity, which lowered the character of our statesmen for information. . . . It will be a sufficient gratification for [the author] to have had it in his power to disclose a new field where British industry and perseverance are so likely to reap an early reward, and so able to found an immeasurable empire. . . . All the land is so rich that it requires little or no attention, after being planted, except weeding three or four times a year."

The writer recommends that the "Church and Poor's Fund," which had been accumulating for a number of years, should "be lent out to new settlers at six per cent. per annum, for the express purpose of commencing cultivation in the interior of this vast tract of valuable territory. . . . There is little fear that these colonies will in a short time raise more stock of every kind than can possibly be used, which will be the means of making living considerably cheaper here, and of preparing a new source of supply for the West India islands. The fine savannahs in the interior present a field for graziers which even North America cannot boast. . . .

"Voluntary colonists could be gotten by myriads, did they but know the lot that awaits them. . . . Indolence is a universally prevailing feature in the Indian character; and although the game is plentiful, and the earth so fruitful, that the greater part of their time is unoccupied, except by amusements, yet they are often in want of their usual sustenance. . . .

"The Dutch . . . generally live in sumptuous, elegant houses, and, in other respects, in a manner which fully proves they are set down for life. Having, however, one day some business to transact with Mynheer Voss, of Essequibo, I was convinced this was not, like many other things, a rule without an exception. Mynheer Voss possesses an unencumbered estate worth £20,000, has no other relative in the world than a natural daughter by an Indian to leave it to; he is between sixty and seventy, and came to the colony as a common soldier about 1770. He contrived, while in that situation, by buying and selling little articles, to

amass so much as to purchase his discharge, and to reserve a few hundred guilders to trade on. With them he purchased a sloop-boat, hired a negro, and commenced regular hoopman and huckster, by selling on those estates he went to such articles as he had; and, after a week or two's cruize, he would return to town and replenish his stock for another trading voyage. This course of life he continued for many years without having any regular house; he met with several reverses of fortune, and once or twice was nearly ruined by the loss of his little cargoes, from the vessels getting ashore on the sand-banks at the mouth of the Essequibo, where, to lighten his boat, he was obliged to throw the cargo overboard. These mishaps did not damp his ardour, but, on the contrary, proved a stimulus. He now built himself a hut on the west coast of Demerara, which was intended for a repository of merchandise. His water excursions became more periodical, and he carried at one time only a part of his wares to be freer from risk. The profits of trade were next invested in the surer enterprises of agriculture. In 1785 he purchased the land where he now lives, consisting of 500 acres, and commenced the arduous task of clearing it of the heavy forest trees and bush with three negroes and himself. . . .

"The intention of my visit to him was to receive a thousand pounds, which was then due on his note. I was surprised, in the first instance, on my arrival at the middle path of his estate . . . at not seeing any bridge, or the least trace of one, over the ditch . . . The shadow of a footpath, indistinctly perceptible from being overgrown with weeds and grass, led into a negro hut, where I inquired for the house of the proprietor, expecting that it would be hid from the road in some rural retreat or grove of orange trees. Judge my surprise when an old Indian woman came to the door, and told me in a jargon of wretched English and Dutch that this was Mynheer's residence, and that he was in the field with the negroes. I alighted and desired he might be called. Cudgo, an old negro, superintending others in cleaning cotton, took my horse, and Miss Voss, com-

monly called Quasheba, a yellow buckeen girl, with long black hair, about the age of twelve or thirteen, and without shoes, was sent for her father. The Indian woman, who proved to be her mother, now insisted on my walking in out of the sun; I was accordingly shown into a sort of apartment, indeed the only one there was, which served for parlour, dining-room, chamber, and kitchen; in fact, this was a room for every purpose." Mr. Bolingbroke had more leisure to observe than I have patience to transcribe the internal arrangements of Mynheer Voss's hut.

. . . . "I was soon apprised of Mynheer Voss's arrival by his blowing a shell at the door to call his negroes to dinner; after which he made his appearance, gave me a cordial shake of the hand . . . and inquired after my health. We were obliged to hold the conversation in our respective languages." Here follows a description of Mynheer—a tall, lank man, with a hat of plantain leaves, and a pipe in his mouth. "This grotesque figure, however, received me with the utmost cordiality, and getting a gin bottle from the chest offered me a sapie, which he had poured into a calabash, but this I declined accepting; however, drink with him I must, and therefore preferred a little lemonade. . . . We then went to business. Mynheer made me half a hundred apologies for the trouble I had had in calling for the money, as it was his intention to come to Stabroek to pay it: he had just sold his cotton for a bill of ninety days' sight for the amount I wanted; and, taking an old Dutch writing-desk, of the fifteenth century, from under the table, asked me for his acceptatie (note of hand), which I accordingly gave him, when he presented me with a set of drafts on a respectable house in London for a thousand pounds. I then took some more of his lemonade, and called for my horse, which he insisted on leading over the ditch at the roadside, where we parted. . . . The progress of Mr. Voss, in about thirty years, from a common soldier to a planter, who can give his daughter £20,000, has in it little but what hundreds may expect to rival. There

must be a constitution superior to the climate and to intemperance; there must be frugality, industry, perseverance; there must be some knowledge of writing and accounts, and much alert observation: yet this progress has been orderly, at no one moment remarkable, nor the effect of luck, but of permanent cause. . . .

"Holland having withdrawn her attention from the Eastern world directed it to the improvement of her West Indian colonies. . . . Since the English had made estates there, the Dutch discovered that any part of the continent was fit for cultivation, and the soil everywhere adapted for profitable production."

Here is a quotation from Sir Walter Raleigh :—"I never saw a more beautiful country [he is speaking of the valley of the Orinoco] nor more lively prospects; hills so raised here and there over the vallies, the river winding into divers branches, the plains adjoining without bush or stubble, all fair green grass, the ground of hard sand, easy to march on either for horse or foot, the deer crossing in every path, the birds towards the evening singing on every tree, with a thousand several tunes; cranes and herons, of white, crimson, and carnation, perching on the river side, the air fresh, with a gentle easterly wind, and every stone that we stooped to take up promised either gold or silver by its complexion. . . . We coveted to anchor rather by these islands in the river, than by the main, because of the tortoise's eggs, which our people found on them in great abundance, and also because the ground served better for us to set our nets for fish." . . .

To return to Bolingbroke—"This prodigious extent of river coast is no less adapted for every variety of tropical production, than the banks of the Nile or Ganges. But some European colonies must be founded at the confluences of the chief streams, before those agricultural arts can be put in motion, to which the climate and soil of this province are so admirably adapted. . . . As yet the interior of the district has been little penetrated. . . . The climate of Guyana is the mildest and most wholesome of any tropical countries

hitherto inhabited by Europeans. . . . All the British West Indies would be benefited by free access to the interior of South America. All the other parts of the British dominions would be benefited. . . .

“The Spaniards have progressively accommodated their habits so entirely to the country, the climate, and the gifts of the soil, that they consume at home a larger proportion of what they grow, and import from Europe a smaller proportion of what they use, than any other set of people. They are nearly self-sufficient. . . . The Spaniards have come to America because there is room to live with little labour. Their numbers expand with the quiet regularity of patriarchal families. . . . Those who leave Spain, come to stay, and not to return.”

CHAPTER VII.

WE come now to an illustrious writer, recently deceased, who, in the pursuit of science, has visited nearly every part of the colony, and outstripped all previous travellers in the extent of his researches—I mean Sir Robert Schomburgk.

“Guiana is not devoid of phenomena, which are of interest to the geologist, and which add to the picturesque and magnificent scenery of that colony. The greatest geological wonder of Guiana is no doubt Ataraipu, which, with full right, may be called a natural pyramid, far surpassing in height and grandeur the Egyptian piles constructed by the labour of man. . . . Veins of quartz traverse the great masses of granite, and vast tracts of brown iron ore are met with in the mountains and the flats which extend between the rivers, from the admixture of which the soil receives a reddish tint. This is chiefly the case in the savannahs on the Rupununi, which are frequently covered with black shining pebbles. In the vicinity of Roraima rock-crystals are found. . . .

“The salubrity of the interior is proverbial, and there are many instances of longevity among the settlers on the banks of the rivers Berbice, Demerara, and Essequibo. The natural drainage is here so perfect that all impurities are swept off by the torrents of rain; and the purity of the air so great, that the planets Venus and Jupiter may be seen in the daytime. The climate inland is restorative. . . . It is not the absolute degree of heat which determines the salutary state of a country, but the sudden changes of heat and cold; and . . . the uniformity of the temperature is so great

in Guiana, that it is not surpassed by any country under the globe.

“The opinion that Europeans are not able to undergo exercise or labour under the tropics is a great mistake ; those who take daily exercise without exposing themselves to the heat of the vertical sun, and abstain from the excessive use of strong liquors, may enjoy the best health and a long life. . . . Few countries on the surface of the globe can be compared with Guiana for vigour and luxuriance of vegetation. A constant summer prevails ; and the fertility of the soil, the humid climate, and congenial temperature, ensure a succession of flowers and fruits. . . . Diversified with hills, plains, forests and meadows, a country so extensive offers various productions. These have been increased by introductions from other parts of the world, and present objects of industry and enterprise, which ensure to the poor maintenance, to the labourer the liberal recompense of his toil, to the merchant commerce, and to the capitalist an increase of his wealth. . . . It appears as if the power and strength of productive nature, in recoiling from the poles, had collected itself near the equator, and spread its gifts with open hand, to render its aspects more imposing and majestic, and to manifest the fecundity of the soil. Gigantic trees raise their lofty crowns to a height unknown in the European forest, and display the greatest contrast in the form and appearance of their foliage. Leaves cling to their trunks, interlace their wide and spreading branches, and having reached their summit their aerial roots descend again towards the ground and appear like the cordage of a ship. Clusters of palm-trees, of all the vegetable forms the most grand and beautiful, rise majestically above the surrounding vegetation, waving their pinion-like leaves in the soft breeze. Nature, as if not satisfied with the soil allotted to her, decorates with profuse vegetation the trunks and limbs of trees, the stones and rocks ; even the surface of the water is covered with a carpet of plants, interspersed by magnificent flowers. . . . The dense and almost impenetrable forest of the interior offers inexhaustible

treasures, not only for architecture in all its branches, but likewise for the manufacture of furniture, and for many of the purposes that minister to the restoration of health or to the comfort and luxury of man. . . . Not less productive in medicinal herbs are the savannahs; and an enumeration of the various useful trees and herbs would fill sheets. . . . I shall content myself with enumerating such [of the animals which are indigenous to Guiana], as contribute to the wants of man, affording a wholesome and delicate food. To this belong the tapir or maipuri, the capibara or waterhaas, the labba, the agouti, the acouchi, the cairuni or wild hog, the peccari or Mexican hog, and deer of different species; . . . Numerous herds and varieties of monkeys people the otherwise solitary forest, and serve as food for the natives. The manati, lamantine, or sea-cow, is from time to time met with in the larger rivers; its flesh is white and delicate, and has been compared in taste to veal.

“Not less numerous are the birds; and while some astonish us by their magnificent plumage, others fully make up for their deficiency in this respect by their delicate and nutritious flesh. To the latter belong divers species of wild ducks, the powis, marudi, the hannaqua, resembling a pheasant; the duraqua and maam, both resembling the European partridge, wild pigeons, &c. . . . Of the saurian tribe . . . the guana, which has the appearance of an overgrown lizard, is from four to six feet long, including the tail; it is entirely harmless, and its flesh is declared very delicate. . . . Land tortoises and fresh-water turtles are very abundant, the latter chiefly in the river Essequibo and its tributaries. They assemble in large numbers during the time that the female deposits her eggs on the sandy shore or banks of the rivers. The eggs are very delicate, and are eaten fresh, and smoked, by the Indians; or they prepare a sweet-tasted oil of it, which is much used for culinary purposes by the Brazilians. . . .

“The rivers of the interior teem with delicious fish in great variety. The arapaima, or pirarucu (*Sudis*

gigas), and a species of *silurus*—the ⁴lam⁴-⁴la⁴, are from ten to twelve feet long, and weigh from two to three hundred pounds. The luganani or sunfish, the haimura, bashaw, cartabac, killbagre, the delicious pacu, the arouan, the paiara, the morocoto or osibu, the lankidi, the parrau, &c., vie in delicacy with any of our European fresh-water fishes, while numerous others contribute equally to the nutriment of man.

“The colony possesses a treasure superior to [gold and silver], and able to enrich millions of its inhabitants, viz., its amazing fertility, and the diversity of its soil and natural productions. . . .

“The sandhills are followed by savannahs, which generally extend to the first rocky belt, and are sometimes interspersed with woods and rivulets. They are most extensive between the rivers Demerara and Berbice; they are also frequent between the latter river and the Corentyn: but these must not be confused with those of the Rupununi, which are sterile. The former are clothed with nutritious and wholesome grasses, and in consequence of the number of springs and brooks, and the thickets of wood with which they are interspersed, it appears as if Nature herself had pointed them out for the pasture grounds of thousands of cattle and horses. Those between the rivers Berbice and Demerara occupy upwards of 3,000 square miles, and the favourable circumstance that they are plentifully watered by tributaries of the Demerara and Berbice, and interrupted by woodland to afford shade during the heat of the day, enhances their value as grazing grounds.

“The soil between these hills and the central range of mountains consists of a strong fertile loam, mixed with clay and vegetable mould. . . . Indeed, it is a rich primitive soil. . . . The fitness of the hilly tract, or central chain of mountains for the cultivation of coffee, and . . . the vine and olive, is perfect. The springy soil in these mountains would produce almost anything; but the sides of the mountains, I am sure, as far as my experience goes, are qualified for the production of the finest grapes, equal to those of Madeira, and without much labour and expense. . . .

"In ascending the river Berbice, and having passed the central range of mountains, we found in lat. $4^{\circ} 20' N$. the bank of the river low, and forming large inlets. The understratum of the soil was here highly retentive, while on the surface it consisted of a clayey marl, mixed with mud and sand. . . . It is particularly qualified for the cultivation of rice; and thousands of acres, now lying in a worse than useless state, might thus become subservient to the wants of man. This morassy soil is bordered by gently undulating ground of great fecundity. The soil which I found between the two rivers, when crossing from the Berbice to the Essequibo, was very rich; we found . . . at the abandoned Indian settlement of Primoss, numerous cocoa-trees . . . loaded with fruit in different stages. . . . It was evident that Nature had assisted in propagating them; their luxuriant growth and numerous fruit proved that they thrive well in the soil.

"The immense masses of fine white clay of the river Corentyn would probably prove a valuable article for the manufacture of stoneware or porcelain, while the coloured and coarser clay might be used in the manufacture of bricks. . . . The sand which forms the first elevation . . . contains much silex, and is well adapted for the manufacture of glass. Experiments were made with it in Boston, U.S., which proved highly satisfactory, and produced a better glass ware than is generally manufactured from the sands in the United States. These cliffs become of further interest as their structure, if judged of by analogy, renders it probable that coal might be found in that situation; if such proved the fact, it would add a new and valuable resource to those which the country already possesses. . . . Red iron ore is sometimes to be met with in the granite regions; but the brown iron ore is most conspicuous in the tracts previously alluded to. . . . The oxide of manganese, which I have seen in the possession of the Indians, consisted only of small quantities. Whether large mines of that metal are extant in Guiana it is difficult to say. . . . The Indians employ it to give a lustre to their native pottery. . . . The tracts of

sandstones in the river Corentyn may prove useful; some of the blocks would square ten to twelve feet.

“The vegetation of the interior contains treasures which need only to be developed to ensure the welfare of millions, and so minister to the comforts, necessities, and elegances of mankind in general. The beautiful timber which abounds in the vast forests, and covers millions of acres, profits, under present circumstances, only a few; . . . as every competent judge acknowledges, the mora and greenheart vie, or even surpass the East Indian teak and African oak. . . .

“It is well known that vessels built with indigenous wood . . . are of superior description with regard to strength and durability. . . . The colony is also rich in woods which are adapted for cabinet-work, turnery, and ornamental purposes, many of which are at present unknown to the cabinet-makers of Europe. . . . Of equal, if not greater value, are the trees and plants from which medicinal substances may be obtained, and which, at present, may be considered buried riches. It would be in vain to attempt a description of all the medicinal plants with which the dense forests of the interior abound. . . .

“The productiveness of the soil is so great, that the Indian bestows but little labour on the cultivation of his provision field. He plants cassada, maize, plantains, sweet potatoes, yams, &c., and leaves it to Nature to ripen them. If an increased population should permit the interior to be cultivated, this tract would produce coffee equal in quality to that from Jamaica and Martinique, which is considered the best in the West Indies, and would soon surpass Jamaica in quantity of export. . . . The outlay of capital being small, this circumstance would offer great inducements to settlers; and if in the selection of the soil and situation some care were bestowed, I see no reason why it should not equal the Mocha bean. . . . The indigenous cottons are very numerous. . . . I have already pointed out that, among the vegetable productions of Guiana, a great many are objects of desire in Europe: their number

might be considerably increased; and I venture to propose such as I know might be successfully cultivated, from my researches in the interior of British Guiana. Rice. Two crops of rice might be procured annually. . . . A Mr. Bielstein . . . raised repeatedly three crops in a year. . . . Indian corn. . . . Millet. . . . Victoria wheat. . . . Cocoa. . . . M. de Humboldt observes . . . that cocoa plantations are occupied by persons of humble condition, who prepare for themselves and their children a slow but certain fortune. . . . Vanilla. . . . it needs only to plant the slips among trees, and to keep them clear of weeds. . . . Tobacco . . . the sample which I sent from the interior . . . was pronounced to be equal in quality to the Havannah, and even to surpass it, in consequence of its thinner ribs. . . . Cinnamon . . . nutmeg . . . pepper . . . pimento, ginger, cardamoms, turmeric, indigo. Numerous other articles might be recommended to be cultivated which at present are entirely overlooked; among these is the plant that furnishes the opium . . . senna, and numerous species of cassia . . . sarsaparilla, cinchona, or Peruvian bark, &c.; for all of which the colony would afford a proper soil for cultivation. To these medicinal plants we may add the grape vine, figs, olives, . . . the cochineal insect and silkworm would offer another addition.

“The cultivation of the tea plant has been tried at Trinidad, and would have been successful if the all-engrossing cultivation of sugar had not prevented it. Guiana possesses the soil of Trinidad, and tea might be raised there.

“Fishing is entirely neglected, and the immense numbers and variety of the finny tribe profit but few. . . . Game, chiefly deer, is sometimes abundant at the upper savannahs. While travelling over those which skirt the Paracaima mountains, we procured sometimes, in the course of a few hours, from four to five deer. The maipuri, or tapir, frequents the forests along the marshes and rivers. Its flesh resembles beef,

and is much liked by the Indians. Two species of wild hog, the acouri, or agouti—the delicious cuba or paca—the waterhaas, or capibara, and many others, administer to the wants of man, or form delicacies. Numerous is the feathered game, resembling in appearance, or by their luxuriant eating, our European game birds. . . .

“I alluded in former remarks to the fitness of the extensive savannahs between the rivers Berbice and Demerara for grazing-grounds. . . . The climate in these regions is uncommonly healthy, and the country well watered by springs and rivulets. . . . If, therefore, enterprising colonists should cultivate pasturing-grounds, and stock them with cattle from the savannahs of the Rio Branco, fresh beef might be had at an equally cheap rate as in the United States. . . . The administrator of the Brazilian cattle-farms at the Rio Branco informed me . . . that the number of cattle amounted to about 5,000, and that the price was six dollars per head. The pasture of the savannahs of the river Berbice being similar, and the locality and supply of water superior, to the savannahs of the Rio Branco, the success of farms which were stocked with cattle would be ensured.

“I cannot conclude my observations on the capabilities of British Guiana without referring once more to the importance of its timber trade, and the source of wealth which might be derived if there were a sufficient number of woodcutters. . . . The fitness of the timbers for naval architecture is unparalleled, and, in some instances, is said to surpass the teak. The greenheart, the mora, and souari, or sewarri, of all other woods are most unquestionably the best adapted for ship-building. . . . If, therefore, the attention of the Navy Board could be drawn to the important fact that British Guiana can furnish the finest and most durable wood in the world in sufficient quantities to supply all the ship-building establishments in Great Britain, a double benefit would arise from it—viz., the saving to Government, and the increased demand for the national productions of the colony. The first experiment might

be made to establish a dockyard for the repair of such of Her Majesty's cruisers on the West India station as draw not more than eighteen or nineteen feet water. The outlay of such an establishment would be trifling, if the importance of ultimate success be considered. . . . The woods which are qualified for ornamental purposes vie in elegance, if polished, with any in the world. The want of labourers is the great cause that these treasures lie comparatively hidden, and have scarcely excited attention.

"An unlimited and free emigration alone is able to rescue British Guiana from its rapid decline. Emigration alone will enable us to reap all the advantages which this truly magnificent colony offers. . . . The labourers of Mr. Blair, in the county of Berbice, bought the estate No. 6, or Bel Air, with plantain cultivation and a large dwelling-house, for 50,000 guilders (equal to £3,500 sterling). . . . Would our labouring classes in Europe be ever able to amass riches sufficient to become landed proprietors? Doomed to pine and toil in poverty, in rags, and hardships, their only landed possession is likely to be the grave which closes their misery. Would that they availed themselves of the advantages which a colony like British Guiana offers to them.

"I think that competition, more than any other means, will induce the indigenous labouring classes to settle down into steady habits of industry. . . . Let us see what advantages British Guiana offers to a father of a large family, who has resolved upon emigration to distant parts. 'Coffee plantations,' it is observed in a colonial paper from Guiana, 'are peculiarly fitted for giving employment to all ages of both sexes. The poor of England, Ireland, and Scotland, who have large families, in thousands of instances, cannot avail themselves of the assistance of their children in the prosecution of their labour, because in country districts, particularly where agriculture is the chief employment, strong hands are required; so that the young and the weak are deprived of the opportunity to contribute any-

thing to their own support ; but should a thousand poor labouring men, each with a family of ten, arrive in this colony, they could get work for every one of them that was able to pluck a coffee-berry. A coffee-picker, working at a reasonable rate, may earn a dollar a day ; the business is so easy and light that it could be performed by little boys and girls."

"Guiana may be reached in a sailing-vessel in five weeks. . . . The equipment necessary for emigrants . . . is trifling, if compared with what is required for proceeding to New South Wales or the Canadas. . . .

The extensive landholder and manufacturer of sugar, and the labourer, constitute the two great classes of the population in British Guiana ; the middle classes, so necessary to connect the two extremes, are almost entirely wanting. The emigrant who could command a moderate capital is best adapted for filling that void. His attention would be directed to the cultivation of such commodities as do not require vast outlays or much manual labour. . . .

I have already alluded to the cultivation of tea, spices of all kinds, tobacco, indigo, arnatto, the grape-vine, cocoa, rice, plantains, and maize, as demanding less capital and less manual labour than the sugar-cane. The extensive cultivation of tropical fruits, and chiefly the pine-apple, would afford competence to many. . . . I revert again to the importance of an extensive cultivation of cotton in Guiana, where there are lands near the coast and in the interior for raising the finest kinds. . . .

It is much to be wondered at that the extraordinary facilities which the colony of British Guiana offers for colonisation have not promoted an extensive emigration of industrious Europeans to this territory. The fecundity of its soil and the great energy of vegetation between the tropics ensure the agriculturist a succession of harvests ; no winter interferes to impede his labour, no blighting hurricane thwarts his prospects, no earthquake spreads horror and desolation over the scene of his industry. A uniform climate reigns throughout the year, and the soil possesses unequalled richness, and extends for several hundreds of miles from the coast,

washed by the Atlantic, to the sources of those rivers which, if population could be planted on their banks, would offer means for the maintenance of millions, and facilities for the most extensive inland navigation. . . .

[This] is one of the greatest recommendations of the colony. . . . Did not British Guiana possess the fertility which is its distinguishing feature, this inland navigation alone would render it of vast importance; but, blest as it is with abundant fruitfulness, this extensive water communication heightens its value as a British colony. . . . It is a great mistake to believe that the heat of the climate renders Europeans unable to labour in the tropics. . . . Europeans would be particularly qualified for working in coffee, cocoa, spice, and other plantations, where shady trees protect them against the full influence of the sun; or if their periodical daily labour were restricted to three hours in the morning and two in the afternoon, I have little doubt that they might be employed with advantage, and without danger to their constitutions. . . .

“With the introduction of industrious emigrants from the mother country, and the establishment of colonies in the interior, cultivation will gradually extend, and by this advancement two points of great importance will be secured—namely, with the spread of civilisation, the wealth of the colony must increase; and while those labours which are necessary to reclaim the fertile soil from Nature, and to make it available, are conducive to the health of those who are thus employed, the example of industrious Europeans must have a high moral influence upon the few aborigines who still inhabit British Guiana; and although the latter may be averse at present to cultivate the coast lands, I have no doubt they would tender their labour if a colony or settlement were formed in the interior.

“Below Aritaka, on either side of the Essequibo, there are districts of no small extent of fertile lands, with extensive forests of excellent timber-trees. The regions between the sand-hills and the first rapids in the Demerara river, those between the Berbice and Corentyn,

along the banks of the small river Wicki, the savannahs of which recommend themselves, like those of the Wieroni, as pasture-grounds; the hilly tracts in the vicinity of the first falls in the river Berbice; the fertile regions between the Upper Berbice and the river Essequibo in the vicinity of Primoss—are all well calculated for colonisation. The soil is various and highly productive, and the expenses connected with clearing the ground would be repaid by the value of the timber cut down.

“ With the cultivation of these waste tracts, the spiritual and social welfare of the province would spread in equal ratio; and Great Britain will be more than rewarded for the inducement she may give to emigrants to Guiana. . . . Thousands, who in Great Britain depend upon the poor funds for mere subsistence, would in so rich a colony as Guiana become independent, and appear in the list of those who contribute to the consumption of British manufactures, and thus add their share towards the increase of national prosperity. . . . Guiana bids fair ere long to become a focus of colonisation; and with her fertility, her facilities of water communication, she may yet vie with the favoured provinces of the Eastern empire, and become, as Sir Walter Raleigh predicted, the El Dorado of Great Britain’s possessions in the West.”

Here our quotations must stop; not from want of materials—for they might have been extended to three or four times the space. The difficulty has been how to reject and condense, without marring the connection or deviating from the *ipsissima verba* of the writer. Enough has been said to enable those who take any interest in the subject to form an opinion as to the general character of the country, its amazing fertility and unbounded resources. By the few glimpses vouchsafed of its savage inhabitants, it will be demonstrated with what facility a subsistence may be obtained without any of the adventitious aids of civilisation. On some points it may be objected that there is much repetition, but this must be considered intentional. In so impor-

tant a matter, it is surely of great consequence to establish a fact out of the mouth of many witnesses. Specially is this the case with regard to the adaptability of the climate to European settlers. On this subject I make no comment. I produce the decided opinion of men of reputation who have resided in the country, and traversed it north, south, east, and west; and so I am content to leave the matter. *i/*

I regret that I have been unable to procure the very interesting work of Mr. Hillhouse, and another little book written by a Frenchman, named Milliroux, both having a special bearing on the subject.

Since the foregoing extracts were written, a further development of the internal resources of the colony has taken place. A new product, of which Hancock and Schomburgk never dreamed, has taken its place in the price current. This is the ballata, or gum of the bullet tree, one of the most useful, as well as most common, timber trees of the country. The falling off in the supply of gutta percha has rendered this article an exceedingly valuable commodity, being of a superior quality and adapted to all the purposes for which gutta percha was used. Again, the discovery of gold in Venezuela has stimulated enterprise here, and, in consequence, a company has been formed for carrying on mining operations on a tract of land granted to them by the Government up the river Cuyuni. The day may not be far distant when the working of our coal measures will add a new ingredient to the prosperity of the colony, and give it a proud position among the dependencies of Great Britain.

CHAPTER VIII.

It would seem absurd at this day to advocate emigration on its own account. Common sense should teach us that, when one portion of the world is so thickly peopled that human beings roughly jostle one another in the race for life, and other portions are abandoned to the wild beasts of the forest and a few wandering tribes of savages, it is the design of Providence that the swarming hives of humanity should send out some of their burdensome population to form new settlements and convert the wilderness into a fruitful field. It was a command of Jehovah to Noah and his sons, after the earth had been depopulated by a flood—a command accompanied by a blessing, “Be fruitful, and multiply, and replenish the earth.” And, doubtless, the same injunction is laid on their descendants. History tells us that the policy of colonisation has ever been the stoutest prop of commonwealths. It is to her colonies that Great Britain is indebted for her position and existence as a great power. It is from the acquisition of colonies that her commercial and maritime greatness dates. Without them she would have been a mere second-rate kingdom, like Prussia. Had she not known how to keep them, she might have sunk down into the position of Spain. Napoleon I., than whom few men have been more sagacious in practical matters, understood this very well. He knew that the secret of the great strength of his stubborn antagonist lay in her colonial possessions, and he, too, wished ardently that he had colonies, commerce, and shipping.

It follows that those who oppose a system of colonisation not only set their faces against a natural law, but also retard the prosperity of the colony, and deprive

the mother country of the advantages that would accrue from a flourishing dependency. It is, in fact, a suicidal policy. The objection that has always been made against introducing free settlers into this colony has been, that the labourers would be drawn away from the sugar estates. Of course it is very desirable that a large amount having been expended on the introduction of immigrants, and much expense incurred during the period of their acclimatisation, the planters should have the benefit of their labour when they are well seasoned and in prime working condition. But this is no part of the bargain. They serve the time for which they are indentured, and after that they are free to go where they please. It is well known that they often shift from one estate to another before the period of their indentureship expires; they commute for the remainder of their term of service frequently. No one complains of this, because it is a recognised practice. Then why should it be a grievance if they go to settle up the rivers? Will the estates be denuded of labourers by their departure? By no means. The planters have the same remedy for supplying the vacancies as they would resort to if they were caused by death, commutation of service, or otherwise. India and China have too redundant a population for us to tremble for a scarcity of supply for years to come. If a wholesale migration from the estates took place (lamentable as it would be for a time), we need not fear.* But no one can possibly contemplate such an emergency. And if not, the evil apprehended must be dismissed as purely imaginary. For, supposing some half-dozen Chinese, for instance, removed from an estate, will it be contended that there would be any appreciable indication of their loss in the returns or in the rate of wages paid to the remainder? Not at all. The estate will make its 500 hogsheads or so, just as before, and a new batch of immigrants will be applied for periodically to supply the deficit caused by death, departures, and casualties. I

* Of course I refer to free immigrants. Indentured labourers would be amenable to the law, to whatever part of the colony they might go.

maintain that the case which I have put may be considered an extreme one, and that where the immigrants are well treated and meet with indulgence, it will require very strong inducements to urge them to leave a good employ. Then, again, there will be many, who, from various causes—such as lack of energy, local attachment, lucrative employment—are not disposed to remove from place to place, but prefer to settle down on the estate to which they were originally allotted. It is simply a few restless spirits, fond of a roving life, whom it would be difficult to retain under any circumstances, that would care to leave the estates for the new settlements.

You see, I leave the Creole labourer out of the question entirely. In the first place, the planter places no reliance on him, except in the event of his living in the negro yard, when the manager has some hold on him. But it is generally a particular variety of the negro species that chooses this habitat. He is probably a remnant of the old slave stock, and his father and grandfather lived there before him: he is rooted to the spot by local attachment. Or he is a thriftless ne'er-do-well, who spends his wages at the grog shop as fast as he earns them; or he is naturally of an indolent disposition, and only works when he has arrived at his last plantain; both of which characteristics are hereditary. In either case he can never save a few dollars to buy a piece of land and build a house, and so make himself to a certain extent independent. There is no fear of this sort of character taking to the bush. He is chained down and double weighted by the heavy drag of necessity. The better and really decent class of people have tasted too freely of the sweets of civilised life to exchange them for the rough work required in forming new settlements. The ordinary Creole labourer remains, and he has no love for the rivers and creeks. It is to the coast lands that his aspirations are directed, where he may raise a few head of stock, have a provision ground "aback," and enjoy the *dolce far niente* under his own mango or cocoa-nut tree, undisturbed by over-

seer or tax gatherer. So that the objection of the planter can only apply to immigrants; and *how far* it applies I have endeavoured to illustrate. I may add that the coolies hitherto have shown no disposition whatever for settling beyond the cultivated districts. They are essentially an agricultural race, and not given to wandering. Should the interior be well colonised, however, it may be doubtful whether they might not become graziers, and turn the splendid savannahs of the colony to account. For this they are admirably suited from the great fondness they have for cattle.

No more illusory dream was ever conjured up than this, —that the establishment of settlements in the interior would depopulate the sugar estates and bring ruin on the planting interest. The very reverse would be the case. In new settlements, as in every other location, there would be people of unsettled habits; there would be some who were ill adapted for the laborious work required of them; some who could not tolerate the rough living and deprivation of the ordinary comforts of civilised life; some too strongly afflicted with the *amor nummi* to endure a primitive existence, in the transactions of which “filthy dross” holds no place. All these would drift back to the estates, and more than compensate for the few stragglers that had deserted in the first instance. It might take a generation, or even two, to make the influence of the new policy tell upon the price of labour and provisions, but that can be no reason why the good work should be retarded, when the present happiness of thousands is involved in it.* The permanent prosperity of the colony depends on crowds of emigrants being freely poured in upon its waste lands, and we know where to find them ready and willing to come, if only the way is made plain. The present mode

* An anecdote is told of a gentleman being on a visit to a friend, and suggesting that the vicinity of the house would be much improved if some fruit-trees were planted around it. “Cui bono?” said the matter-of-fact friend, “I shall most likely be away from here in a year or two.” “Never mind that, my dear sir,” said his visitor, “Plant for posterity.” “Not a bit of it,” was the reply; “posterity never planted for me, and why should I plant for posterity?”

of supplying the colony with labour may be compared to feeding a strong man with gruel—one drop to be taken every hour. No amount of money can represent the benefit which a large accession to the population would bring, or the increased value it would give to every description of property. And this is why I say that opposing colonisation is a suicidal policy, because, as population diminishes, property becomes depreciated. Property rises in value as population increases. Who would advance money on real estate that cannot be turned to profitable account? No consideration can be of greater importance than this. But there are other important considerations connected with this question. There is no doubt that, as far as the supply of the means of subsistence is concerned, we might be perfectly independent of any other country. Perhaps no country in the world is so bountifully supplied with every kind of produce necessary for the maintenance of man. Yet we depend upon North America for our supply of salt-fish, flour, tobacco, and corn, on India for rice, on Canada for board and plank. We have to import our beef from the Oronoque,* potatoes from Bermuda. This would not be the case if we had a population up our rivers who were free to devote their attention to the cultivation of the soil and to fishing, with a view of supplying the markets regularly.

For some time past the people of Berbice have been supplied with plantains from Demerara, because the

* "Beef is already at a price that places its consumption almost entirely beyond the reach of the labourer. But there is a prospect of its rising even to a higher price. We were told the other day by the Attorney-General that the charcoal trade had become a monopoly in the hands of a single enterprising individual in this city. Butcher's meat promises soon to be in a similar position. The cattle farms seem to be nearly exhausted, and we have to depend mainly upon the importations from Orinoco. But we are told that these importations are monopolised by a single butcher, who is supposed to hold all the stalls in the Stabroek market. It is not a pleasant thing to reflect upon,—that 30,000 people should depend upon one man for their supply of beef. There appears to be something practicable in Mr. M'Clintock's suggestions for the conversion of our savannahs, between the Berbice and the Demerara, into cattle fields. Cannot the Government and the Combined Court give it some attention, and see whether it might not be turned to the advantage of the country?"—*Creole*, 5th April, 1865.

greater population in the latter county forces a number of people who cannot procure work on the estates, or who prefer that occupation, to cultivate provisions. And here we witness the practical benefit of the subdivision of labour—a benefit which we have not seen exemplified in this direction to any extent since the time of slavery. The working man must have his plantains and ground provisions; but there is rarely a market where he can purchase whenever he requires them. He is compelled, therefore, to have and to cultivate his own provision ground. This takes him away from field labour. It is like a man being obliged to leave his regular employment to make himself a hat or a pair of shoes when he requires them. But give the labourer an opportunity of buying provisions, as he wants them, at a moderate price, and he will find it far more profitable for him to give the whole of his labour for wages than to work off and on at the estate or provision ground respectively. In slave times it was compulsory to keep a certain acreage in provisions, and this was an advantage to the proprietors. It enabled them, by setting apart a certain number of labourers to that cultivation, to ensure the steady services of the remainder for the settled work of the estate. Thus the whole were regularly supplied with provisions at a slight sacrifice, instead of the estate being deprived of their services while each man cultivated his own. Extend this principle, and it will be seen how much the sugar estates would be benefited by the settlement of the rivers. It is true that the Coolies and Chinese do not consume much ground provisions, but live principally on rice,—that being their customary food in their own country. But I suppose that if native provisions were produced in abundance, and thus became more economical than rice, the immigrants would reconcile their palates to the produce of the country, and give encouragement to the class of farmers.

Notwithstanding that I urge the colonisation of the interior, I am no advocate for inducing people to leave the estates. The one does not necessarily follow from the other. This would be merely a transfer of the

population from one part of the colony to another, the necessity for which has yet to be demonstrated. Nor would it be politic to make use of the advantages offered by the system of indentureship to the estates for a limited number of years, for the purpose of inuring settlers to the climate and then removing them. I think the authorities I have quoted will justify me in the opinion that persons proceeding at once to the interior, immediately after their arrival in the colony, will undergo the process of seasoning far more favourably than if they took up their abode in the coast regions.

How, then, is it intended to carry out the object which I am advocating, without interfering with the present supply of labour? I propose now to address myself to that point.

CHAPTER IX.

It is certainly a remarkable fact, and one to which we cannot shut our eyes, that one of the principal results of the discovery of gold in Australia and California has been to draw from the isolation in which they had hitherto intrenched themselves one of the most remarkable nations in the world. With a civilisation far beyond most of their contemporaries a few centuries ago, the Chinese do not seem to have advanced in the knowledge of the arts and sciences. Until very recently they considered that man daring indeed who would venture to sail out of sight of land; and their specimens of naval architecture are to this day subjects of curiosity, and even amusement, to Europeans. Notwithstanding, wherever they have gone they have exhibited a wonderful genius for colonisation. They are sociable in their habits, shrewd in business transactions, very industrious, and adapt themselves readily to circumstances. A Chinaman will make a living where many others would starve. This, no doubt, arises from the great competition which exists in consequence of their country being so densely populated. The whole Chinese empire, including much desert territory in Mongolia, Mantchouria, and Thibet, contains about seven million square miles, and the population is estimated at 360 millions, or about one-third of the entire population of the globe. Compare this with British Guiana, with 76,000 square miles of territory and 150,000 inhabitants. So thickly peopled are some parts of China that the very rivers are covered with floating colonies, whose denizens procure a subsistence by fishing, and cultivating artificial islands moored in the stream. This is one of the most peculiar phenomena that attract the attention of the traveller in

navigating the rivers of China. It is, indisputably, in consequence of this superabundance of population that the practice of infanticide has become so common as almost to constitute a marked national trait. It would, therefore, be a positive benefit to humanity to find a vent for the pent-up millions who inhabit the Chinese empire. We know by experience that they are not indisposed to seek their fortune in new lands. Give them but a fair prospect of gain, and there is no part of the world to which they will not travel. They "are, pre-eminently, a people devoted to money-making. The great object of their idolatry, practically, is Mammon. They may strew flowers, burn pieces of gilt paper, and bow themselves before their gods; but to Mammon they give their thoughts, their affections, and their labours." They are not addicted to hoarding, however, like the Coolies; but spend their money when they have earned it, being very fond of good living. It is on this account that they prove such valuable labourers on the sugar estates, surpassing all, except the negroes, in the amount of severe labour that they are able to perform.

Bolingbroke wrote, more than fifty years ago:—"Discoveries of what can be rendered useful avail little without the human hands that are to turn these gifts of nature to a profit. The accounts given of the Chinese, and the astonishing rapidity with which they have got up, in Pulo-penang, all the parts of a complex and civilised society under British laws, and in a climate corresponding with that of Guyana, render it highly probable that Chinese colonists would form the most valuable accession to our present stock of labourers which could be introduced. They have those habits of body, which can bear the exertions of industry between the tropics; and they have those habits of artificial society, which fit them for a variety of labours to which rude savages cannot be brought to attend. Above all, they have a rational foresight, and may be entrusted with the care of their own maintenance, without danger of that ruinous improvidence—that careless alternation of intemperance and sloth—that besets the African negro

who is his own master. It is said that the Chinese will stay, but never settle, in a strange land, and that when they have earned a little money they go home to live upon it; but if they should not generally prove to be settlers, their labour will still have prepared fields and created houses for the use of other successors, and they will become the teachers of a multiplicity of those arts and habits, which a long experience of hot climates has naturalised among the orientals. Guyana is adapted to be the China of the West, and may be instructed by the nation, who ought especially to be its model."

It was not until 1853 that the experiment here indicated was tried on a very small scale;* and seven years elapsed before the local Government were sufficiently impressed with the superiority of this class of labourers to send a special agent to China for the purpose of organising a regular system of emigration from that country to British Guiana. The person appointed to this responsible post was John Gardiner Austin, Esq., now Lieutenant-Governor of Honduras, who was very materially assisted in his operations by a Prussian missionary, Dr. Lobscheid. This gentleman visited this and other colonies where Chinese had been settled, in 1861, with the object of inquiring into the condition of these people in the land of their adoption, and of making suggestions to the authorities where he saw that something might be done for their amelioration. Dr. Lobscheid was so much struck with the desirability of this colony for Chinese settlers that he advocated the establishment of village communities up the rivers, in favourable localities. The only grace which he asked at the hands of the Government, towards carrying out this beneficial object, was the grant of a few acres of waste land, free of expense, to each family. The subject was discussed at great length in the Court of Policy, but the feeling of the elective members was so strongly opposed to the scheme that it was dropped. Shortly afterwards, however, in "an Ordinance to make better Provision for the

* In 1853 there were 650 Chinese introduced by private speculation, and 598 in 1859.

Care and Superintendence of the Rivers and Creeks, Crown Lands and Forests of the Colony," a clause was inserted* for encouraging such undertaking at any future time, if it should be found desirable. This was the only good that resulted, beyond the agitation of the question, from Dr. Lobscheid's scheme.

Dr. Lobscheid felt so strongly the advantage of his proposition both to the colony and the Chinese themselves that he expressed himself confident of the possibility of adding 50,000 to the population in a very short time, and with but trifling expense to the Government. The class of men he had in view were not such as many of those who have been shipped at great cost—thieves, mendicants, professed gamblers, low mechanics, "halt, lame, and blind," the scum of Canton and other large towns—but agricultural labourers, gardeners, small farmers, and tradesmen; men who could earn a subsistence in their own country, but who were every day being pressed upon more closely by increased competition; people who would pay their own passage to the colony, and bring with them a small capital to work upon. He saw with his mind's eye that long procession of boats, laden with produce of every description, swarming from all sides in the direction of the markets of Hong Kong, and many of them returning with their cargoes unsold by reason of the enormous supply far exceeding the demand. He saw their industrious but unfortunate owners transferred to the rivers of this colony, and finding a ready and increasing sale of the products of their labour. It would be worse than useless to repine at what is past and gone; but we may, at least, learn wisdom from the failures of our predecessors.

An experiment is now being carried on that may prove of incalculable advantage, if successful. In 1864 there arrived in the colony from Singapore, a gentleman of Chinese extraction, named O-tye-kim. He was a land surveyor by profession; and his object in coming to the colony was to preach the Gospel to his countrymen, while he gained a livelihood by the practice of his

* See page 7.

calling. In February, 1865, he petitioned the Governor and Court of Policy to grant him a tract of land on the Commooni Creek, at the foot of the first sandhills up the Demerara river, and vote him the loan of 1,500 dollars, to enable him to form a settlement of free Christian Chinese. The petition was opposed on the same grounds and by the same section of the Court as were instrumental in burking Dr. Lobscheid's proposal. Whether Governor Hincks, however, was more favourably disposed than his predecessor towards the policy in question, or more determined in carrying a scheme to which he had, perhaps, at first given his countenance, or whatever else may have been the motive power, on the subject being again introduced in the Court, the obstructive members succumbed, and the prayer of the petition was granted. The infant settlement has commenced under auspicious circumstances, and has been named "Hoptown," in honour of Admiral Hope, who visited it during his recent stay in Demerara. The distinguishing feature of it is, that only Christian Chinese are admitted as settlers, and therefore it will be limited in extent, if the resolution to make it so exclusive be adhered to. Old colonists, too, have strong doubts as to the healthiness of the locality. The most unhealthy districts in the whole territory lie between the mouths of the rivers and the first rising ground; and it is to be regretted that, in the spot chosen for the experiment, all the most favourable conditions for the purpose should not have been combined. The nearness of the metropolitan markets appears to have been a temptation too powerful to be resisted.

In itself, perhaps, this enterprise is not to be very highly commended, because it transfers a number of valuable labourers from one part of the country, where their services are appreciated, to another, where it is possible that they may be practically unprofitable. It may, however, be a seed-plot of good, if it prove that free people are capable of cultivating the land with profit to themselves and advantage to the colony, though they are without capital, and thrown entirely on their own

resources and the bounty of nature; and also if, by communication with these settlers, others in the farthest East may hear of this as "a land flowing with milk and honey," and may be induced to add their willing hands and active brains to our scanty population.

It has been objected that, in the case of Chinese imported promiscuously, and without so strong a check as the Christianity of the Hopetown community would offer, scenes of lawlessness and disorder would be presented, unless a strong force were at hand to suppress the earlier symptoms. There is little doubt that the Celestials are very prone to take the law into their own hands in consequence of the cupidity and cowardice of the mandarins. But they are naturally an orderly and peaceable people, with very correct notions of equity; and where they see the law firmly administered, they are not backward in conforming to it with the greatest readiness. Again, let me say, we are not to form our ideas of the nation from the specimens that have been shipped to these shores. There is no doubt that a far better class might be induced to come here; and coming here as producers, and benefiting the colony, they would be entitled to a share of all those safeguards which a wise government provides for the welfare of its subjects. These people inherit a civilisation which had attained its height before England had been admitted into the comity of nations, and, therefore, we need be under no apprehensions that they would comport themselves as a race of savages.

To China, then, we must look in the first instance for material to enliven the solitude of our vast forests, to make our rivers teem with life and activity, and to add to the prosperity of our population by cheapening the necessaries of life and exploring the vast riches which lie unheeded on the bosom of the earth. There are millions of her sons and daughters who are hard pressed for a comfortable maintenance, who are driven to great shifts to keep the wolf from the door. Let them come: here is room enough and to spare. They are just the people we want. Hardy, industrious, enterprising, accommo-

dating themselves to circumstances, and turning everything to account, they must and they will prosper. Above all, we must not lose sight of the hope that a settlement in this land may contribute, at no distant period, to emancipate them from the thralldom of ignorance and superstition, and to make them acquainted with the truth of the Gospel. Surely in making an effort to direct their steps to these shores we may persuade ourselves that we may be instrumental in some slight degree in hastening that desirable consummation when "the earth shall be full of the glory of the Lord, as the waters cover the sea."

We turn now to our own mother country. Why should not Englishmen seek their fortunes in this favoured province as well as in the distant, and certainly less inviting colonies of Australia and New Zealand? Those who have perused the foregoing extracts will perceive that there is really no rational cause to be assigned. There is a prejudice against the colony arising from results which are observed on the coast lands. It must be noticed, however, that what is true of the alluvial flat does not apply to the elevated regions. We have nothing here to do with the coast: our business is with the upland districts, and to their salubrity, fertility, and temperate climate all travellers bear a spontaneous and enthusiastic testimony. Prudence is necessary in the mid-day heat of the tropics as in the trying winters of Canada. A lengthened residence here, no doubt, proves somewhat enervating; but a short trip to a northern latitude, or even to the bracing air of the coast, would recruit the system and ensure a protracted season of health. The cultivation of coffee and cocoa has been pointed out as specially adapted for the employment of Europeans. That of cotton is equally so. In his pamphlet on Free Cotton Sir W. Holmes writes, "The great want of the colony is a middle class, and, I believe, the re-establishment of cotton cultivation will do more to create a substantial yeomanry than any other movement. . . . I can conceive no more favourable position for an industrious working man with a large

family than that of a small farmer in British Guiana. His cottage, taking the climate into consideration, can be built at a trifling outlay. It would, in a few years, be surrounded with ever-bearing fruit trees; fish, when near the sea, is obtained with little trouble. In the immediate vicinity of his residence his cotton-fields would yield him two crops annually, and the shrub being perennial, it requires little attention, except during the crop; and as the picking comes off in the dry season, it might be considered a sort of jubilee like that of hop-picking in England, as giving a light and pleasant occupation, even to the young children, when gathering and cleaning the cotton pods; while, at the back of the cotton-field, every sort of vegetable production might be cultivated."

There are many other ways of acquiring a competence without much exertion, such as the growing of provisions, burning charcoal, raising cattle, &c. The collection of ballata, or milk of the bullet-tree, might employ thousands who are now a burden on their parishes; and yet, so scarce is labour, that little more can be sent home than is sufficient for the purpose of experiments, while our manufacturers are crying out to us to send it them by tons. The failure in the supply of gutta percha has given this article a prominent place in the list of useful products, and were it otherwise, its superiority as an insulator would give it a preference in the manufacture of electric cables. The process of collecting the gum is very simple. You go into the forest where bullet-trees abound, and with a cutlass make a longitudinal gash down the trunk, then lateral cuts on either side leading into this; at the bottom of the channel thus formed a small gutter of tin or bamboo is placed to conduct the milk as it trickles down into a calabash or other vessel placed on the ground at the foot of the tree. The ballata-gatherer goes from tree to tree, repeating the process, until he is tired, and may thus bleed a great many trees in a single day. Sometimes a single tree will give half a gallon of milk, which sells for two shillings. The quantity yielded depends very much

upon the season, the age of the moon, the size of the tree, and other circumstances. There is no hard work, no exposure, in this occupation; and if the collector carry his gun with him when he goes out in the morning, he is sure not to return to his dinner without something to put in the pot. England has still thousands of her children to spare who will carry her language and religion and laws into yet unknown regions. The fulfilment of her destiny is in the womb of time; but every age contributes to the accomplishment of it. "From us," says a popular writer,* "was to be the greatest colonisation. And it seems as if we had been trained up with a view to that, accustomed early to independent action, as people who would have to seek their fortune in the world."

There is another nation, allied to us by blood, from which also we might draw large re-enforcements. The capabilities of the Germans for colonising have been markedly displayed, more particularly in the United States of America. They are intrepid adventurers and explorers. How much we are indebted to Humboldt and Schomburgk and other lesser luminaries for what we know of Guiana! Thousands of Germans leave their Fatherland yearly for more profitable fields of employment. Could not some be diverted to our El Dorado?

Now, why are these selections made? First, because these people are specially adapted for transplantation. Secondly, because they are most readily available. But there is a welcome for all comers. Had this colony but a population in proportion to the most sparsely-peopled state of Europe, it would be a territory worthy of giving a crown to one of the younger sons of our beloved Queen.

* Arthur Helps in "Friends in Council."

CHAPTER X.

PECULIAR CAPABILITIES OF BERBICE.

IN so extensive a tract of country, possessing a soil of such unbounded fertility running throughout it, with the exception of certain limited districts, it is difficult to give one locality a preference over the rest for the purposes of colonisation. Yet there are circumstances which seem to point out the river Berbice as the most favoured by nature for the successful establishment of new settlements. The river has already been colonised far up; in fact, this was where the Dutch formed their first permanent settlement in what is now called British Guiana. Here they built their first town, which was the capital of the colony until the end of the last century, when it was abandoned, and the present town of New Amsterdam built at the mouth of the river. Although cultivation has retreated in the direction of the coast, scattered settlers are located at many points on the river. From all accounts, the most valuable tracts of land lie between the rivers Corentyn and Essequibo, and the river Berbice runs through the entire centre of this territory, in one place (about $4^{\circ} 1' N.$) approaching within fifteen miles of either river. Besides this, there is a ready communication with them by means of its tributaries, one of which, the Canje Creek, is an important stream and admirably adapted for colonisation on account of its safe navigation and the peculiar facility for growing rice on its banks. Skirting the shores of the rivers Berbice and Corentyn, and covering many an acre of the intervening country, the bullet-tree, which produces the gum called ballata, abounds. The collecting of this substance alone would afford a light and profitable occupation to thousands. Those who have

read the foregoing extracts will have seen the splendid opportunity which is offered by the boundless and well-watered savannahs for grazing innumerable herds of cattle. The finest descriptions of timber are also found here. To all this it may be added that the natural scenery of this river equals, if it does not surpass, that of any other part of the country. It was the first selected for colonisation, and to this day it is the favourite of those who have had the best opportunity of travelling throughout the colony.

I have reserved for this place such quotations from Schomburgk's account of his ascent of the Berbice and Corentyn as are deemed worthy of special notice. "As we proceeded, cultivation continued on the eastern bank [Berbice river]; but on the opposite bank Nature had reclaimed her own. What a contrast do these shores now present when compared with their aspect towards the close of the last century. Then plantation followed plantation as far as the Savonette, the last estate of the Dutch West India Company, about sixty miles from the sea: of the greater number of these, scarcely a vestige now remains, yet free labour and capital alone are wanting to restore the former scene of beauty arising from high cultivation, uncontaminated by the baneful influence of human slavery. . . . "Noy-tegedazt (not expected). . . . The resident here cultivates rice with much success, and he only wanted labourers to enable him to realise large profits; the sample he showed us was very fair. . . . Wickie. . . . The wallaba (*Dimorpha*, spec. ?), one of the most useful trees for posts, shingles, and staves, occupies the soil almost exclusively here. On issuing from the wood, two miles to the westward of the settlement, a large undulating savannah, partially wooded, was before me." Mr. McCallum, the head of an extensive wood-cutting establishment here, quoted, says, "I have invariably found that the Indian sets to work at once with good heart, and remains at it until his task is finished, which is generally two or three hours earlier than the negroes; but not satisfied with this, he continues to

work in his own hours; and I know many an Indian, who, besides his regular wages, earns from two to three dollars per week. They are also, in my opinion, more honest. Were the Indian well treated, he would prove an invaluable labourer."

"At Monbacca, on the south-eastern bank of the river, is an Indian settlement. Beyond we came to some steep, sandy hills, about 100 feet high, and the highest yet seen of that formation. I scrambled up them, and was richly rewarded. The prospect over undulating ground, extended to the south-east upwards of fifteen miles, and the number of hills of the same formation as that I stood upon, covered with dense wood, formed one of the finest views of woodland imaginable. Immediately below our feet the placid river spread out as a lake, and distinctly reflected the magnificent trees which margined its banks. Beyond was an immense extent of wood of every tint and hue, from the bright yellow-blossomed *hakea* to the dark, lucid green of the gigantic *mora*. The view in the distance was closed by parallel ranges of thickly-wooded hills; behind us was an extensive savannah, with beautiful slopes covered with verdure and clusters of trees.

"In lat. 4° 55' N., at the distance of 165 miles from the sea, measured along the windings of the river, the influence of the tide is no longer felt. . . . The river is navigable to this point for flat-bottomed canoes, drawing two feet water; it now becomes less winding, and has a breadth of about eighty yards.

"We were not very successful in procuring game, but we were indemnified by a large number of fish. . . . Our crew procured fourteen large *haimaras*, one of the most delicate of the finny tribe in these rivers; their average weight is about fifteen pounds. In order to catch them, spring hooks are set in the evening, and when the fish, allured by the bait, takes it, it is drawn by the elasticity of the rod out of the water, and there it hangs until it is secured by the fisherman; but it is not man only who is anxious to secure the entrapped fish: among the foremost comes the kayman, which,

attracted by the noise of the struggling fish, considers he has as much right to it as the Indian who sets the hook. In this piratical system he is assisted by the *pirai*, called by the Arrawaaks *houma*, which slashes piece after piece from the poor captive, and when the fisherman takes his round, he finds nothing but the head attached to the rod. Those who set the hooks should, therefore, be constantly on the alert. . . . [Here we have the record of the discovery of the beautiful "Victoria Regia" lily:—] We arrived at a point where the river expanded, and found on its eastern bank a smooth basin, the current of the river directing its course along the opposite shore. Some object on the southern point of the basin attracted my attention. I could not form any idea of what it might be, and I hurried the crew to increase the rate of their paddling. In a short time we were opposite the object of our curiosity—a vegetable wonder! All calamities were forgotten; I felt as a botanist, and felt myself rewarded. A gigantic leaf, from five to six feet in diameter, salver-shaped, with a broad rim of a light green above, and a vivid crimson below, rested upon the water; quite in character with the wonderful leaf was the luxuriant flower, consisting of many hundred petals, passing in alternate tints from pure white to rose and pink. The smooth water was covered with them, and I rowed from one to the other, observing always something new to be admired. The leaf is on the surface of a bright green, in form almost orbiculate, except opposite its axis, where it is slightly bent in; its diameter measured from five to six feet; around the whole margin extends a rim, from three to five inches high, on the inside of a light green, on the outside a bright crimson. The ribs are very prominent, almost an inch high, and radiate from a common centre; they consist of eight principal ones, with a great many others branching off from them; these are crossed again by raised membranes, or bands, at right angles, which give the whole the appearance of a spider's web, and are beset with prickles; the veins contain air-cells like the petiole and flower-stem. The divisions of

the ribs and bands are visible on the upper surface of the leaf, by which it appears aerolated. The stem of the flower is an inch thick near the calyx, and is studded with sharp elastic prickles, about three-quarters of an inch in length. The calyx is four-leaved, each upwards of seven inches in length, and three in breadth; at the base they are thick, white inside, and reddish-brown and prickly outside; the diameter of the calyx is from twelve to thirteen inches; on it rests the magnificent flower, which, when fully developed, completely covers the calyx with its hundred petals. When it first opens, it is white, with pink in the middle, which spreads over the whole flower the more it advances in age, and is generally found the next day of a pink colour; as if to enhance its beauty, it is sweet-scented. Like others of the tribe, it possesses a fleshy disc, and the petals and stamens pass gradually into each other, and many petaloid leaves may be observed which have vestiges of an anther. The petals next to the leaves of the calyx are fleshy, and possess air-cells, which must contribute to the buoyancy of the flower. The seeds of the many-celled fruit are numerous, and embedded in a spongy substance. We met them hereafter frequently, and the higher we advanced the more gigantic they became. We measured a leaf which was six feet five inches in diameter, its rim five and a half inches high, and the flower across fifteen inches. The flower is much injured by a beetle (*Trichius*, spec. ?), which completely destroys the inner part of the disc; we have counted sometimes from twenty to thirty in one flower.

While the men were employed cutting through a large mora tree, information was brought that a herd of *Kairounies*, the large peccary or Indian hog (*Sus cystiferus major*), was feeding at a short distance from the river. All our guns were immediately put in requisition, and off we started—Acourich, the Carib, armed with bows and iron-headed arrows, in the van. I first came up with them, and found them in a pool of water, where they wallowed in the mire, like our domestic hog. One appeared to stand watch while the rest enjoyed the muddy bath, the

young ones of various sizes keeping the middle. When I was at a distance of fifteen yards, the sentinel observed me: the bristles on the back rose, and it turned towards me, chattering formidably with its teeth; in the next moment it lay prostrate in the mud, pierced by a rifle-ball; but how can I describe the bustle, the rush, and the chattering of the tusks of upwards of two hundred, which immediately after were seen to seek security in rapid flight in the opposite direction! An Indian who had come up by this time fired after them and shot another, and the retreat was now perfect. I had loaded again, but hesitated a moment to wade through the swamp; the Arawaak, Mathias, observed it, and he requested me to give him my rifle and ammunition, and off he started with it. I heard four or five shots shortly after at some distance on my right, and while yet calculating how many of them might have told, I heard a rushing noise like a whirlwind approaching through the bushes; the peculiar growl, and that awful clapping of the teeth, did not leave me long in doubt as to its cause; it was evident that the herd had divided, and were coming directly towards me. I stood alone, unarmed! I had not even a knife to defend myself. I know not yet how I climbed the lower part of a mora tree, when by they rushed, their muzzles almost sweeping the ground, and their rough bristles on the back standing erect; they might have numbered fifty. They came and passed like a whirlwind, and before I had recovered from my astonishment I heard them plunge into the river and swim over to the opposite bank. The other hunters had not been so fortunate as I expected; excitement or fear made them miss where it would have appeared almost impossible. Including the one I had shot, three had been killed with guns, and one with an arrow. They were a most welcome addition to our stock.

"The under stratum of the soil from lat. $4^{\circ} 20'$ to $4^{\circ} 10'$ N. is highly retentive; while on the surface it consists of a chalky marl, mixed with the mould. It is particularly qualified for the cultivation of rice; the more so since it is annually inundated and enriched by

the deposition of mud, which would render manure unnecessary. If put under partial drainage, I am persuaded that these lands would produce two crops a year.

. . . We started at nine o'clock by land in a south-west direction to cross over to the Essequibo. . . . The soil was extremely fertile, and, generally speaking, the ground preserved the same level. . . . The wood which we traversed consisted of magnificent trees; the soil, springy, and of a rich vegetable mould, mixed with sand, would produce anything. . . .

"We had walked from our camp at the Berbice to Primoss, on the eastern bank of the Essequibo, in three hours and twenty minutes. . . . I had desired, when I left the camp, that a gun might be fired at six o'clock in the evening; we heard it quite distinctly; the direction was N. 55° E.; the direct distance nine miles. . . . Where I crossed, with the exception of a dry bed of a streamlet which has its outlet beyond our camp, we did not see any appearance of even a brook between the Berbice and the Essequibo. . . . The soil between the two rivers appears to be particularly calculated for the cultivation of cocoa; and the flourishing condition of the plants we found near Primoss * may be cited as proof. . . . The ground [between the Berbice and Corentyn] is similar to that between the Berbice and Essequibo. There is only one small brook to cross. . . . I conclude the distance is not more than twenty-four miles. There are therefore no difficulties in connecting the Upper Essequibo with the Corentyn—an object that may be of importance to the colony. . . .

"Parish's Peak . . . 910 feet above the level of the sea, and 775 feet above the river Berbice. . . . The fitness of this hilly tract for the cultivation of coffee, and, from its gravelly and clayey nature, for the cultivation of the vine and olive, is remarkable. The springy soil in the valleys would produce almost anything; but the sides of the hills are particularly adapted for the production of grapes without much labour or

* See p. 71.

expense. What an area might here be claimed from Nature, and made subservient to the wants of man! This range of hills, which is connected with the Twasinkie and Paracaima mountains, I am disposed to consider as the old boundary of the Atlantic; the geological features might lead to such a supposition. A little further north commence the hillocks of sand, which may be presumed as the consequence of a receding sea."

As the country in the neighbourhood of the Wironie and Wiccie creeks is specially indicated as favourable for settlement, I here introduce what Schomburgk has to say of it. He ascended both streams. The Wironie is on the western and the Wiccie on the eastern bank of the Berbice.

"On our return to Wickie I found that the weather was more favourable in the coast regions than the advanced season would have led me to expect. I resolved, therefore, to undertake a tour to the river Demerara, partly by means of the Wieronie, a tributary of the Berbice, and partly by land over the savannahs.

"*Feb.* 27, 1837.—We started from Wickie, and descended the river as far as Peereboom, the residence of Mr. Duggin. . . . This gentleman has a wood-cutting establishment on the Wieronie, and as I proposed to ascend the river as far as I could, to judge of its fitness for navigation by punts and other river craft, I thankfully accepted his offer of a letter to his superintendent, to give me Moses, an Arawaak chief, as a guide across the savannahs, should I find the navigation too intricate to proceed.

"*Feb.* 28.—We arrived at the mouth of the Wieronie, which joins the Berbice from the north-west at a point where the river, flowing to the north, takes an abrupt turn to the south-east, and expands considerably. The waters of the Wieronie are very black, but perfectly clear; its width is about fifty yards, its depth twenty-seven feet. At its eastern angle of junction there was formerly a redoubt, and a [Dutch] Reformed Church, of which the remains are to be seen. The minister's house was on the river's opposite side. We found the current

very strong, and, as the river is influenced by the tides, the ebb obliged us to come to. There were formerly several plantations along the banks of the river, and we observed the remains of a wharf, trenches, &c., and the soil appeared to be very fertile. The river meanders, and keeps an average depth of eighteen feet. The savannahs frequently approach the river; and at other times its banks are margined with trees and bush. From a small hillock on the right I had an extensive view over the savannahs, which stretch to the rivers Maiconie and Mahaica, &c., and lively intercourse is carried on between the Indians of these rivers across the savannahs.

“March 1.—The scenery of the river became very interesting: it expanded occasionally like the upper Berbice, but its lake-like expansions were generally encompassed by higher land, studded with little islands, on which were numbers of the majestic eta-tree. Its lofty stem supports numerous fan-shaped leaves, and a gigantic cluster of almost round seeds about two inches and a half in diameter, and marked like the cone of a pine.* A path leads from one of these inlets, called Catacabura, across the savannahs to the river Demerara, but as I had no guide I preferred to proceed to Yucabura, nine miles further north, in order to obtain the promised guide. The river becomes shallow wherever it expands, and though it is scarcely in such places more than from four to five feet deep, punts loaded with wood navigate it freely. I found that it would be advisable to leave the corial here, and to proceed on foot over the savannahs.

“March 2.—With Moses as guide, we commenced our pedestrian excursion. He was accompanied by his wife, a young Arawaak, not half his age, whom he burdened with his share of his baggage. We followed, for about three miles, the river's course from the south-west, through woods which border its banks. The rich vegetable soil was here several feet in depth, and elastic to the step. On issuing from the wood we entered a

* See page 49.

tract of bushes about twelve feet in height, which to one unacquainted with the vegetation of these tracts, would cause surprise at its luxuriance in a loose sandy soil, as white and sterile apparently as the sand of the sea-shore. The fact is, that in digging it will be found that the sand is mixed at a certain depth with rich mould. Nevertheless the flora is quite peculiar, and the flowers of these bushes distinguished by their fragrance. The Arawaak Indian names these spots of undergrowth *moro*. They are the transition from the wood to the naked savannah, which we entered shortly after. I was here agreeably surprised to see the savannah alternate with woodland and hillocks; the prospect was therefore by no means so monotonous as in the savannahs of the Paracaima mountains. Passed a small brook, called the Catchie-cabura, which meanders as a sprightly streamlet in a north-west direction through the wood towards the Wieronie. After we had refreshed ourselves we continued our journey, exchanging the hot savannah for the shady forest. The eye was never wearied by monotony; occasionally it swept over the plain to the dense forest which bounded the prospect to the west, or it was arrested by a ridge of coppice wood, over which towered the eta, with its fan-shaped head, and marked the track of a rivulet. On our right the course of the Wieronie was distinctly indicated by the number of eta-trees. At four o'clock in the afternoon it was not more than a mile from us, and I profited by the opportunity to ascertain its course by compass bearings. On the edge of a wood we passed some huts, abandoned, as we were told, on account of the murder of an Indian in a quarrel.

"After a march of twenty-four miles we halted for the night at some huts, tenantless except by chigoes, which swarmed. A meridian altitude of compass gave me $5^{\circ} 40' 30''$ N. as our latitude.

"*March 3.*—At an early hour we crossed the brook Aroma, which flowed to the W.N.W. through a narrow glen about forty feet deep, apparently effected by the gradual action of the stream. This was also characteristic of all the running waters we passed here. On

emerging from a wood we saw some Indian huts before us—they were abandoned; our guide recollected, however, the former provision fields, and off started the whole train to cut sugar-canes. After nearly an hour's delay, they returned almost loaded with canes and pine-apples. Our march continued across savannahs and through woods. At ten we arrived at the brook Yawarie, with light-brown water. It here flows north, and joins the Wieronie about half a mile from the place where we crossed the former. We ascended a hill of about sixty feet in height, and continued our march along its brow for two miles, in a south-west direction; at its western base flows the Wieronie. On ascending, we had to wade through a swamp before we reached that river, which here was almost darker than at its mouth, but scarcely more than eight yards wide and nine feet deep, with a strong current. Arrived at the opposite bank, we had again to wade through a swamp: we often sunk up to our waists in the mud, and were really rejoiced when we reached rising ground. We stopped at five p.m., fatigued by our march, and drenched by torrents of rain, at the edge of a wood, where were some temporary huts a few steps from the brook Elissa, also flowing to the northward.

“March 4.—We resumed our course through the woods; it was now mostly wet: the stream Wannoka, with black waters, was almost as large as the Wieronie, where we crossed it. The soil chiefly fertile woodland; the trees consisted of tedermas, wamara, kakerally, manaribally, kakerabally, pourouch, or bullet-tree, &c. &c. The weather was not more favourable than the preceding day, and several swamps which we had to cross by no means assisted to make our journey agreeable. It is difficult walking through one of these swamps; they are generally overgrown with manicole palm, and as soon as some substantial soil has collected around their base, that graceful tree appears to rise from a hillock. If the traveller succeeds in stepping from one of these hillocks to the next, he is sure to sink not much above his ankles in the black mud; but should he miss

his mark, he may prepare himself to sink to his waist in the boggy ground, whence he rises, not as a swan, unless it be like that once *rara avis*, the black swan. We passed several brooks flowing to the north, very likely tributaries to the Maiconie and Mahaica, on the sea-coast. At one o'clock, having previously followed the ridge of a hillock about fifty feet high, we descended and crossed the Alissaro, a brook with white water, and the first which flows in a southern direction, or contrary to those we had previously passed. We again ascended a steep hillock, higher than any we had hitherto seen (perhaps eighty feet), then crossed two streamlets, also flowing to the southward, and came upon the vestiges of a former timber path.*

"An hour afterwards we passed some new fields, planted with cassada, pumpkins, and other necessities for the sustenance of the Indian. The path descended from here gradually, but I should say that these fields were upwards of 200 feet above the Demerara river. On issuing from the wood we were at an abandoned settlement, and in sight of the river Demerara, which we hailed with delight. It is here dark-coloured, and very different in appearance from the muddy river it presents at Georgetown. We reached its banks at a place called Ajackwa, and then followed its course northward for about a mile and a half, and arrived at 3.45 at the Post Seba, where Mr. Spencer, the post holder, gave us a most hearty welcome.

"We crossed the Wieronie in lat. $5^{\circ} 39\frac{1}{2}'$ and long. $58^{\circ} 3' W.$, from whence it appeared to take a far southern direction; the direct distance from that point to the river Demerara is therefore about $21\frac{1}{2}$ miles;†

* Wooden rollers, laid down at certain distances, to facilitate the transport of timber to the river.

† The direct distance between the rivers Berbice and Demerara, that is, from the junction of the Wieronie and Berbice to the Post Seba on the Demerara, almost in the same parallel of latitude, is about fifty-two miles, viz., thirty to the point where the Indian path crosses the Wieronie, and twenty-two thence to the Demerara. The former part may be likened to the string of a bow, or the chord of an arc of sixty miles, described by the river Wieronie meandering to the northward through the savannahs; and to judge from its numerous sweeps, inlets, and

and there is no doubt in my mind that the Wieronie is ample enough to be rendered navigable for canoes and punts to the point where we crossed it: the trees which have fallen across it need only to be removed to make it already navigable for corials and light canoes. The whole distance which we had walked, according to the circuitous road which we had been led from the brook Yucabura, amounted to fifty miles. The savannahs which we had traversed are plentifully watered by beautiful streams, tributaries to the Wieronie and Berbice, and abound in wholesome and nutritious grasses. They are therefore particularly qualified for the grazing ground of many thousand head of cattle and horses. The favourable circumstance that these savannahs are so well watered and interspersed by woodland, to afford shade, enhances their value, and if an experiment is required whether the grass be wholesome, we need only to refer to Mr. Duggin, who has lately begun to raise cattle, and is highly satisfied with the results.

“One other pedestrian excursion offered itself: I was anxious to visit the Corentyn by means of the Wickie

occasional swamps, the rise of the ground between these two rivers can be very trifling. The cause of its rapid current must be looked for nearer its source in the south. From the Wieronie to the westward the ground appears to rise till within about seven miles of the river Demerara, where, judging from the opposite course (north and south) of the streamlets (whose outlets we do not know, unless they reach the coast), it may be presumed is the watershed or line of separation of waters flowing to the Demerara and the Berbice. It is probable that this line may be only a few miles to the westward of the spot where the Wieronie was crossed, but it is not easy to discover. Yet this is not the highest ground between the two rivers, which appears to reach 200 feet at the distance of only a mile and a half from the eastern bank of the Demerara. Thus the Berbice forms the natural drain of a country extending thirty-five or perhaps forty-five miles to the westward, and upwards of thirty miles (by the Wickie) to the eastward, or nearly to the banks of the great river Corentyn and to the Demerara, neither of which, during this part of its course, receives a tributary of any importance. What a noble tract of fertile country do these savannahs offer to the colonist; land rich in all the luxuriance of a virgin soil and a tropical sun, and offering every facility of communication that can be desired! It may be noticed that the shortest distance hereabouts between the Demerara and Berbice would be an E.S.E. line from the Post Seba to the Western bend of the Berbice, below the junction of the river Wickie, about forty-seven miles, and this line continued for forty-seven miles further would cut the river Corentyn close to the post of Oreale.—
Editor Royal Geographical Society's Journal.

and Canje; and as many of my Indians, from Oreala and its neighbourhood, had their wives and children with them, which it would have proved inconvenient to take to New Amsterdam, I resolved to accompany the supernumeraries to their home: this would at the same time enable them to send corials on their arrival for their husbands, to the mouth of the Corentyn, to await their return. We entered, therefore, the river Wickie on the 20th, where it is about forty yards wide and twelve deep, and continued upwards in a S.E. direction: its waters are whitish and turbulent; in other respects it resembles much the Wieronie, as well with regard to scenery as in soil. Numerous orchideous plants were seen attached to the branches of trees which overhung the river; and the curious *Coryanthus*, the yellow *Oncidium gongora*, and others, were in blossom, and distributed a delightful fragrance. One was remarkable, in consequence of its growing on the lofty stem of the eta palms, and its narrow pendulous leaves were from six to seven feet long. . . . We arrived at half-past four in the afternoon at the brook Pototo, which joins from the N.E., and whose course we followed, as we understood that a short distance from its embouchure some Arawaaks were living. The Pototo resembles an *itabú* (the Arawaak term for the lake-like expansions of their rivers). It spreads about 400 to 500 yards, and is partly covered with rushes and other water plants. We ascended the river for about twenty minutes, when we halted at the landing-place of the Arawaak settlement on the eastern bank, and shortly after received a visit from some of the men: they were very friendly, and informed us that the nearest path led from their settlement to the Canje and Corentyn: there was another higher up, but it was not more frequented, as the Indians who lived there formerly had removed. I resolved, therefore, to engage one as a guide to accompany us next morning.

"*March* 21.—I was astonished to see with what burdens the women, who were now returning to their home, had loaded themselves. They had carried on a

lively barter with such articles as they had received from me in part of their payment, and calculated on a second profit on those which they had procured in return. The savannahs which we traversed resembled those between the Wieronie and Demerara. They appeared to be more wooded, and possessed more slopes. After crossing the stream Turi-cabura, we ascended a hillock about eighty feet high, whence was a beautiful view. We crossed a brook with a rapid current and black water, and on emerging from the wood found ourselves on the border of an extensive swamp, on the other side of which we observed several Indian huts. It was provoking to find that we must cross the swamp, rendered so much the more difficult, owing to the rushes and grasses having been lately burnt to the ground. Here were only four huts. We bought half an *apuje*, or lesser peccary, which the owner had just shot.

"*March 22.*—Continued our route. An hour's walk through the dense wood, abounding in useful timber-trees, chiefly bullet-trees and wallaba, brought us to the small settlement of Arawaaks on the bank of the river Canje; it had been only lately established. We found the chief occupied in making baskets from the slender branches of a species of bignonia: when he rose he presented a frightful picture of dropsy. He, however, offered his services to accompany us to the Corentyn, as he was well acquainted with the track. Unfortunately, my plan of accompanying the Indians thither was frustrated by a severe attack of rheumatism."

What follows is from the same traveller's diary of an ascent of the Corentyn, in October, 1836:—

"Pursuing our way up the first or sea reach of the river Corentyn for about forty miles, with an average width of one mile, we arrived at the Post of Oreála. The banks of the river thus far are generally low, but very fertile, and well calculated for the cultivation of the staple commodities. At present they are almost uninhabited; with the exception of two wood-cutting establishments on the British side of the river no inhabitants are to be traced from Plantation Skeldon to within a

few miles of the Post. Whole tracts of the most fertile lands are left uncultivated, and are the undisputed haunt of the jaguar and the fleet deer. It is not only the fertility of the soil that recommends this tract for cultivation, but the easy communication which might be established between the Corentyn and Canje, an affluent of the Berbice, deserves consideration. . . . We reached before nightfall the second range of clay hills, called by the Indians Sipruta. They are of less height than the former, and their formation made me almost suppose, when on my return from the cataracts I examined them more closely, that they might contain coal. Other features strengthened me in my supposition; and as I do not doubt that this geological feature extends to Berbice, its formation there may be more developed, and indicate a discovery which might be of great benefit to the colony. The composition of the beds consisting in alternating substances, as clay, shale, and sand, as described before, is analogous to the coal measures of Poland, and scattered portions of a bituminous substance, which I found on sandbanks in the river, first drew my attention to the fact. . . . The luxuriant vegetation of the river appeared to increase the further we advanced. I readily recognised all the useful timber-trees for which Guiana is so much famed. The soil is equal, if not superior, to that of the Essequibo, and rests upon a clayey substratum. . . . About a mile from Kayiwa [the first Carib settlement; it is on a hill 100 feet high, close to the river, in lat. $5^{\circ} 4' 10''$ N.] we saw another cliff, about fifty feet high, where clay and bog earth were the most prevailing substances. The clay is of the finest quality, and resembles pipeclay. . . . The banks of the river in the vicinity of Alavarlæ island are ten to twelve feet high, and consist of a species of clay which the Indians call *alina* or *acurú*; they use it for the manufacture of pottery. The substratum was an ochrous clay, covered with rich mould, in which trees and plants appeared to thrive luxuriantly. The wild cotton which I found here is of a superior texture, and the samples which I carried with me to the coast were

much admired. . . . On a point where the river was hemmed in on one side by numerous boulders of sandstone, on the other by a sandbank, we halted to examine the nature of the rocks: they were of the same description as those I had seen at Itaffé and in the Cabalaba, and, in consequence of their close structure and fine grain, peculiarly qualified for grindstones. The boulders are often ten to twelve feet high, and sometimes as much in girth. If, hereafter, building stones should be wanted, this tract will afford abundant materials. These rocks are in lat. $4^{\circ} 43'$, long. $57^{\circ} 40'$.*

"On our right we heard the thundering noise of a cataract, over which a dense cloud of mist was hovering: thousands of swallows were skipping through this cloud, rising and falling as if delighted with the constant moisture arising from the spray. We visited the cataract afterwards, which in grandeur surpassed any I had seen in Guayana; the velocity with which the mass of water precipitates itself over the ledge of rocks to a depth of upwards of thirty feet perpendicular, causes the spray to form the cloud we had observed, before the cause of it was known to us.

"Previous to my visit to this, which is the most western of the falls, I had followed a party of Indians, and after some labour and wading, reached a branch of the river, which divided itself in two channels; the western formed a fall, and the opening prospect on my arrival at its head was beautiful indeed; the water rushed at an angle of sixty degrees into a valley formed by gigantic piles of rocks, which we had taken the previous day for hillocks, in which belief we had been strengthened by seeing them covered with large trees; at our feet foamed the disturbed water, dashing its spray against the rocks that impeded its course; but the most splendid object was a cascade on the opposite side of the chasm; the rocks over which the water fell were clothed

* "From subsequent information respecting the course of the Berbice, it appears that the direct distance from the Corentyn to that river, at this point, is not nine miles, being their nearest point of approach."—Editor *Royal Geographical Society's Journal*.

with a laxis, the pendulous branches of which were often five and six feet long, and the whole resembled a rich carpet; the various tints of green, the strong contrast of its flowers, and the foam of the water which rushed over it, made the scene exceedingly beautiful; we estimated the height of the fall twenty-five feet, and that on the top of which I stood at thirty feet; they are almost opposite each other; but the commotion of the waters where they met, made me suppose that there was a third, which was hid from my view by an intervening island. I was for some time at a loss how to get there, but, by great circuits and dint of wading, I succeeded at last, and I was richly rewarded. Three channels of the river unite at the head of the cataract, and at their junction their farther progress is obstructed by huge blocks of granite, through which they have forced a passage and are thence precipitated headlong into a chasm full forty feet below. A large rock stands out in relief, and has been fancifully said to resemble a thigh bone. The most western cataract is on a grander scale than the two others already described, but what they want in grandeur is fully compensated by the lovely prospect they afford when viewed from the foot of the valley. The Indian name of this series of cataracts is Mavari Wonotopo. The former, or western fall, we named after General Sir Carmichael Smyth: on the latter we bestowed the name of Sir John Barrow, as President of the Geographical Society. There is a third cascade farther to the east, and which, under any other circumstances, we might have considered grand; on the rocks on the western shore here are more of the Indian hieroglyphics. The river above the cataracts is divided into numerous channels, which unite, and form in one breadth the three series of falls just named. . . . Though the expedition up the Corentyn failed in accomplishing this great object [penetrating to the Sierra Accaray], yet the knowledge acquired of this river—the fitness of its banks for colonisation—the peculiar mineralogical formation in its vicinity—and the discovery of the possibility of Guayana possessing coal measures, are of some importance.

CHAPTER XI.

It only remains to sum up what has been discursively set forth in the foregoing pages. Travellers and men of science have there pronounced that this country presents an unrivalled field for colonisation. Beyond the coast lands, which alone have procured for the colony the questionable reputation in which it is held in the mother country, there exists a region of wonderful fertility, capable of sustaining millions of people. Here, there is no interruption in the processes of nature; you may plant and sow and reap throughout the year. An eternal summer reigns. The only alternation of seasons is the wet and dry. The climate is so mild, owing to the elevation of the land, that Europeans may safely labour in the open air for six hours in the cooler part of the day without feeling any inconvenience; and certainly a mid-day siesta will not be considered an extravagance where industry is so liberally rewarded. The excessive variations of temperature which are so hurtful to the constitution, and which cause such an alarming mortality at particular seasons in more northerly countries, are unknown here, the range of the thermometer from one year's end to another being comparatively trifling. The salubrity of the country is unquestioned. It is perfectly free from the fevers that make a residence on the coast so trying, and equally so from those pests of existence that infest the lowlands and make life miserable—mosquitoes. Undoubtedly there are ailments to which even the dweller in this terrestrial paradise is subject; but, whatever they be, among the abundance of medicinal herbs and barks with which the forest teems there will be found sure remedies. The purity of the air is so great that Schomburgk mentions the fact of the report

of a gun being heard at the distance of nine miles, and of planets being distinctly visible in the day-time.' The elements being so propitious, let us see what Nature has done for the sustenance of man. Whoever has tasted the clear fresh water of our rivers and streams is not likely to forget it. Indeed, its agreeable quality has passed into a proverb: "He who has drunk bush-water and eaten labba will not die out of the colony." One of the greatest advantages to the country is, that it is intersected in every direction by watercourses of every degree, from the bubbling rill to the mighty river bearing on its bosom the elements of new and unformed islands to the ocean.

The existence of numerous tribes of aborigines, who easily maintain themselves without recourse to more than the very minimum of agricultural operations (and even these duties are mainly performed by the women, the lords of the creation devoting themselves to hunting, fishing, and lounging in their hammocks), is proof positive of the prodigality of Nature's bounties. By three months' labour, we are told, the Indian is enabled to raise sufficient food for his family for the whole year. What might not the land be made to yield by the aid of persevering industry and all the modern appliances which have elevated agriculture into a science! There is no stiff clay to plough, no heavy trenching, as on the coast estates, where everything depends upon an expensive and complicated system of drainage. All this is obviated by the conformation of the country and the beneficent operations of nature. Wild animals abound, affording the most delicate meat. Birds are also abundant, and contribute to supply the larder with many a delicious morsel. Every tiny stream is alive with the finny tribe. The exuberance of animal life is one of the things which most forcibly strikes the stranger on arriving in a tropical country. But it must be remembered that man does not require in these latitudes the amount of nutrition and the supplies of animal food that his constitution demands to keep up the heat of the body in a northern clime. The lighter and simpler his meals the better.

Fresh meat is a rarity with most of our labouring classes in the rural districts. Such heavy beverage as porter and stout are only drunk when ordered by the physician. Vegetarianism here might win an easy triumph, for it is not impracticable. One might keep up a very tolerable appearance by living as our first parents did in the garden of Eden; and it would be no difficult task, for fruits are found in the greatest profusion, wild and cultivated. To luxuriate in the boundless supply of the luscious dainties of the garden and orchard and forest is the Elysium of the European visitor. When we say that animals affording nutritious food abound in the forest, in the air, and in the streams, it is almost superfluous to add that food is easily procurable. The Indian, with blowpipe or with bow and arrow, brings down his game with unerring certainty. He casts his line into the water, or stands in the bow of his canoe with bow bent and arrow pointed at the glittering spoil below, and seldom fails to bring up provision for a meal. Or he bruises the root of a poisonous plant and throws it into the stream, after damming up a certain portion, and commits wholesale slaughter. He is thus seldom without fish, flesh, or fowl for his dinner. I have spoken of the fertility of the soil, which is, indeed, something marvellous. Corn, sweet cassava, and sweet potatoes all produce a crop in from three to four months, and these are the great dependence of the settler. From the bitter cassava he manufactures his staff of life,—the great resource when the chase fails him. From the expressed juice he makes cassareep, which forms an important ingredient in pepper-pot, preserving it from day to day for a length of time. The Indian nearly lives upon cassava bread, and we have heard Wallace relate how the settlers on the Amazon almost subsist upon farinha, which is the dried meal made from the roots of bitter cassava,—a rough sort of tapioca. The plantain, banana, yam, and other useful vegetables take nearly a year to arrive at maturity. Most trees and shrubs that are profitable to man are in full bearing within five or six years at the utmost from the time of planting the seed, *e.g.*, coffee, cocoa, cocoa-nut, &c.

With regard to clothing, much is true that has been said of food. It need be only very slight and of the most common description. Dr. Hancock says, "As to the most suitable clothing for a hot climate, the example of the Portuguese of Parima should be followed, as infinitely the most comfortable and conducive to health. They here make their own clothing, which consists of white, but coarse cotton stuff, which is spun in large threads and wove in the hand-looms of the Indians. This stuff might be fabricated vastly to more advantage by proper looms. It absorbs the sweat, and preserves the body in a more gratefully cool and uniform temperature than any other species of clothing, and is of extraordinary strength and durability. It is made with the Indian or native cottons, which are of a staple much superior to the Bourbon cotton, or others known or cultivated in the colonies, in Georgia, &c." It is from this cotton that the Caribs make their hammocks, which form the bed, couch, and chair of the settler. The Indian renounces dress altogether, except on the confines of civilisation, and substitutes the lighter covering of various dyes applied to the skin in fanciful patterns. The East Indian coolie merely winds a long strip of calico about his body. The Chinese (men and women) wear a loose jacket and pair of trousers of blue cotton,—nothing more, the patched appearance of which is a strong evidence of their frugality. The negro, when he goes about his daily task, divests himself of everything beyond what simple decency demands. The European alone loads himself with the heavy garments which use has made familiar to him, and which it requires an effort to throw off. It is very questionable whether it would be worth while for the settler to employ his time in making his own clothes, although it would be perfectly feasible; for he might have the cotton growing at his door, and producing a crop from six to nine months after planting. But such is the ease with which ready-made garments of every description can be procured, in consequence of the overstocked condition of the labour market in England, that it would be far more profitable for him to

cultivate the soil and send his produce to market, receiving in return whatever his necessities might require. In an infant state, where labour is greatly in demand, the production of the raw material is always the most remunerative mode of employing capital. As population increases, manufactures will take their place as a matter of course.

The shelter required in this climate is of the slightest description. The Indian's dwelling is simply an open thatched shed, from the posts of which he suspends his hammock. No carpenter or mason is required in its construction, and the neighbouring forest supplies the materials. Young trees furnish the posts; the dalybana, troolie, or cocorite palm-trees the thatch; and a bush rope the cord to secure it. If it is felt desirable to enclose the house, the stem of the manicole palm, sometimes called the palisade-tree, or the kakaralli, split into lengths, answer the purpose, and are very durable. The land is so well drained that a boarded floor is generally dispensed with; but in case the position is less favourably situated, the crabwood-tree is very common, and the wood easily worked into planks. The whole building might be erected without a nail or any other tool than a hatchet, and would afford perfect protection in the most inclement weather.

Thus I have shown that everything necessary to supply the wants of man is bountifully provided in this delightful country. He has only to settle down, and make use of the instincts with which he has been endowed, to enjoy all the happiness that is attainable in this life. A gentleman who lived up one of our rivers some twelve years assured me that the only things he required to get from town were soap and candles, and occasionally a keg of mixed meats. The latter was a sort of luxury: the two former even might have been obtained in the bush. The seeds of the dali, or wild nutmeg, yield an oil, when immersed in hot water, from which candles equal to wax can be made.* A piece of

* The hayowa gum was in use as a substitute for candles; and not only gave a good light, but perfumed the air with its incense-like odour;

bamboo filled with gum animi yields an excellent light, as does the wood of the moraballi. The root, bark, and seed covering of the huruwassa or soap berry tree is an admirable substitute for soap.

To add to all these advantages, the higher we ascend the rivers, the more enchanting does the scenery become.

What more could be desired than is within the reach of the enterprising and industrious man with a contented mind? If the rude Indian can make life enjoyable, what is not within the compass of the more privileged sons of toil, who have been taught to look upon labour as of Divine institution, and intended by the Almighty as a blessing to man! How many a poor rustic is there at home with a large family, who, by incessant toil, is barely able to earn a stinted subsistence for them; but who, if he could only be landed on these shores with a little assistance, might earn a position that would make him the envy of thousands whom he had left behind? And what an advantage it would be to the colony if some hundreds of such families could be sent up our rivers year by year to open up the yet unexplored country, and bring to light riches, the extent of which can hardly be guessed at present! Every one is interested in this matter; for the slightest individual benefit is reflected back in some measure upon the community, and *vice versa*. For trade to flourish, we must have consumers; and, therefore, every one engaged in trade has a personal interest in promoting an addition to the labouring population. This again will confer a reflex benefit upon society at large. It will not do to throw the responsibility of such duties entirely upon the Government, which is frequently too fully engaged in taking thought for the immediate present to have any disposition to provide for the distant future. It is the duty of every individual to do what in him lies to promote the good of his country and his fellow-men. It has been often said that "What is everybody's business

cotton dipped in bees' wax also afforded light.—Schomburgk's "*Expedition into British Guiana in 1835-6*."

is nobody's;" but this arises from a low conception of Christian duty.

"Honour and shame from no condition rise;
Act well your part, there all the honour lies."

Very little is done in this world that may not be distinctly traced to individual exertion, and we should each of us act, so far as our duties will allow us, as though the whole burden of the work we undertake rested on ourselves. This colony has suffered from no cause so much as from people sitting down with their hands folded, and bewailing the evil that was past and the hopelessness of the future. Let us up and be stirring. There is a great work to be done; a great good to be accomplished; a wide field open for all workers. "A land flowing with milk and honey" waits to be divided among those whose hearts do not fail them to enter into possession of it; homes of ease and plenty and comfort to be established for millions who are pining in squalid misery or abject poverty. We have no need to read the words of the people's poet of the Future:—

"There's a good time coming, boys,
A good time coming:
And a poor man's family
Shall not be his misery.
In the good time coming,
Every child shall be a help
To make his right arm stronger;
The happier he the more he has;—
Wait a little longer."

That good time is here, if advantage could be taken of it by the poor. To enable them to do this our efforts should be directed in sustained perseverance to the end.

"There's a good time coming, boys,
A good time coming:
Let us aid it all we can—
Every woman, every man,
In the good time coming.
Smallest helps, if rightly given,
Make the impulse stronger—
'Twill be strong enough one day:—
Wait a little longer."

APPENDIX A.

LIST OF CONTRIBUTIONS TRANSMITTED FROM BRITISH GUIANA TO THE LONDON INTERNATIONAL EXHIBI- TION OF 1862.

*Compiled from the Catalogue published by order of the Committee
of Correspondence of the Royal Agricultural and Commercial
Society of British Guiana.*

SECTION A.

SACCHARINE PRODUCTS AND ARTICLES OF FOOD.

	Speci- mens.
SUGAR, VACUUM PAN	10
„ MUSCOVADO	4
„ „ CLAYED	1
RICE (<i>Oryza sativa</i> , Linn.) in husk	2
MAIZE (<i>Zea Mays</i> , Linn.)	1
COFFEE (<i>Coffea Arabica</i> , Linn.)	1
„ PEARL	1
„ Leaves of, dried	1
BANANA (<i>Musa sapientum</i> , Linn.), meal or flour from unripe fruit of	1
PLANTAIN (<i>Musa Paradisiaca</i> , Linn.), meal from the unripe fruit of, or Conquintay	2
ARROWROOT (<i>Maranta arundinacea</i> , Linn.)	3
STARCH, from corm or root of Bitter Cassava	4
CASSAVA, SWEET (<i>Janipha Loeftlingii</i> , H. B.), flour or meal from corm or root of	2
„ corm or root of, sliced and dried	1
CASSAVA, BITTER (<i>Janipha Manihot</i> , H. B.), bread from corm or root of. The chief food of all the Indian tribes throughout Guiana	1

COTTON (<i>Gossipium arboreum</i> , Linn.)	...	...	...	...	3
" (Sea island)	...	...	...	...	9
" (Black seed)	...	...	...	...	1
" (Green seed and sea island)	...	...	...	...	1

	Specimens.
COTTON, grown and spun by Macusi Indians, Massaruni River	1
" TREE, branch of, with 51 pods containing cotton ...	1
SILK GRASS, or CORAWA FIBRE (<i>Bromelia Karatas</i> , Linn.). Very strong, and used by the Indians for bowstrings, nets, fishing-lines, ropes, &c. ...	3
WILD OCHRO (<i>Urena</i> , <i>sp.</i> ?), fibre and rope made from ...	1
PLANTAIN FIBRE ...	9
COCOA-NUT FIBRE ...	1
PITTIE ditto (<i>Hibiscus</i> , <i>sp.</i>) ...	1
MAHOE ditto (<i>Thespesia populnea</i> , Corr., or <i>Hibiscus elatus</i> , Linn.) ...	3
KIATTA, or KRATTU FIBRE (<i>Hibiscus</i> , <i>sp.</i>) ...	3
TIBISERI ditto, made from the young leaves of the Eta palm, and used by the Indians for making hammocks, &c. ...	3
WINNA FIBRE. The inner bark of the Cacaralli tree ...	2
ITURITE ditto. Used by the Indians for making pegalls ...	1
FIBROUS ROOT of the <i>Pothos macrophylla</i> , Swartz. (<i>Anthurium macrophyllum</i> , Sweet). Used by the Indians to make baskets ...	1

- SECTION C.

CHEMICAL AND PHARMACEUTICAL ARTICLES AND PRODUCTS.

CRAB OIL. From the seeds of the tree yielding Crab-wood. Used for burning, hair-oil, and in skin diseases of horses, cattle, and dogs ...	2
COCOA-NUT OIL. From fruit of <i>Cocos nucifera</i> , Linn. ...	1
LAUREL OIL. From <i>Oreodaphne opifera</i> , Nees. Used by the natives in affections of the joints. An admirable solvent of India-rubber ...	2
WALLABA OIL. From the wood of the Wallaba (<i>Eperua falcata</i> , Aubl.) ...	1
MILK FROM THE DUCALI TREE. Said to be a specific for "Yaws." Contains caoutchouc ...	2
" from the "Hya-hya," "Milk-tree," or "Cow-tree" (<i>Taberna montana utilis</i> , Arn). Described as thick, sweet, and nutritious. Contains caoutchouc ...	2
" from the Bullet-tree, or Burneh-tree (<i>Sappota Mulleri</i> ?). Contains caoutchouc, or the substance known as Ballata ...	1
GUM. From the same ...	1
GUM RESIN. From the Simeri or Locust-tree (<i>Hymenaea Courbaril</i> , Linn.). Said to be the gum animi of commerce. Used for the same purposes as gum copal ...	6
GUM, called "Carman," "Caraman," or "Buck-wax." From the Mani-tree (<i>Amyris</i> , or <i>Icica</i> , <i>sp.</i> ?) Used for the same purposes as pitch ...	2
" or Resin of Conima, from the "Hyawa," or Incense-tree (<i>Icica heptaphylla</i> , Aubl.). Very fragrant ...	1

By the Accawai Indians.

Huruway.

Takusi. A bush rope. The juice as it flows from the climber is used.

Ewong-eka.

Ebe-tag.

By the Arawaak Indians.

Koi-heri.

Sarabadi.

Hyawa.

Mora (black). Administered as a purgative in bellyache.

Touranero.

The following are also used in bellyache :—

Kuruki. In dry bellyache.

Cureta. Ditto.

Hitchia. Ditto.

In the disease known (in this colony) under the name of "CARIBISI SICK," very prevalent among the Indians, many remedies are in use. The disease is a formidable one, consisting of inflammation and ulceration of the anus and lower part of the rectum.

By the Accawai Indians.

Wama-ike. The decoction is used as an injection.

Eke-awaugh. Decoction used as a dressing.

Sa-ru-ma. Ditto.

By the Arawaak Indians.

Moraballi. Decoction used as a dressing.

Mapurugunni. Ditto.

Tauranero. Ditto.

Buruway. Ditto.

Kiraballi. Ditto.

Wara-kiru. Ditto.

The following is also used, and, it is said, with great success, in the same disease :—

Arecadako.

IN COUGHS AND COLDS, decoctions of the following barks are used :—

By the Arawaak Indians.

Yara-yara. Used with much success.

By the Caribisi Indians.

Marata-tou.

Acu-u-an-deperi. Inner bark.

IN VOMITING BLOOD :—

By the Accawai Indians.

Wari. Decoction of inner bark. It is said to be administered only in severe cases.

IN SWELLED LEGS :—

By the Caribisi Indians.

Kara-wari-beti. Decoction of inner bark.

IN TOOTHACHE :—

By the Arawaak Indians.

Wallaba. The cavity in the tooth is stuffed with the inner bark.

By the Accawai Indians.

Kobe-ek. Decoction administered.

IN HEADACHE :—

By the Accawai Indians.

Se-re-na.

By the Caribisi Indians.

Otho-sepee. Decoction of inner bark.

IN SORE LIPS AFTER FEVER. This is a pustular eruption on the lips and chin, making its appearance as the ague attains its acme, and contributes greatly to the haggard look of persons recovering from an attack of that disease.

By the Arawaak Indians.

Dalli. Decoction used as a lotion.

IN INFLAMMATION OF THE EYES :—

By the Accawai Indians.

Pureki. Decoction of inner bark used as a lotion.

Wai-ach. Ditto of the bark ditto.

By the Arawaak Indians.

Baku. Ditto.

Hoboo. Ditto.

By the Caribisi Indians.

Wami. The juice of the plant is dropped into the eyes.

Ko-re-ko. The inner bark is scraped off, and its juice squeezed out and dropped into the eyes.

From pursuing their ordinary avocations without any protection to the feet and legs, the Indians are much exposed to wounds and

bruises, often ending in severe sores. The following remedies are used in CUTS, SORES, &c. :—

By the Accawai Indians.

- Arriwaugh. Decoction used as a dressing.
 Murua-oo. The pulverised bark applied.
 Per-gi-pe-po. The inner bark scraped off, and the juice squeezed out upon the wound.
 Auk-kurema. Decoction applied warm to the sore. It is said to be a severe remedy.
 Kata-moi-ek. Decoction used as a dressing for cuts.
 Kotie. Ditto.
 Marema. Ditto.
 Tam-pe-po. The bark is first charred, then scraped and pulverised. The powder is applied to sores.
 Pero-pe-po. The inner bark scraped and steeped in water, and the infusion applied to cuts.

By the Arawaak Indians.

- Hya-hya. Decoction used as a dressing for sores.
 Kulaballi. Ditto.
 Ki-a-reema. Ditto.
 Hebetu-abu. Ditto.
 Kafa. Ditto cuts.
 Manni. Decoction inner bark, sores.
 Korahara. Decoction used as a dressing for sores.
 Dalli. Ditto.
 Ubudi. Ditto.
 Kautaballi. Ditto.

By the Caribisi Indians.

- Gasperi. Decoction of inner bark applied to sores.

The following are also used for the same purpose :—

- Bush rope, known among the Caribisi under the name of "Baraqu-a," and among Arawaaks as "Seroe-a-balli." The decoction is of a deep purple colour, and very astringent. It is applied warm to cuts and sores with surprising effect.

- Ducuria. Decoction used as a dressing for sores.
 Hurehe. Ditto cuts.

EMETICS are extensively employed in the treatment of disease by the Indians, and the following are used for that purpose :—

By the Accawai Indians.

- Barawaugh-cassi. Inner bark scraped and boiled. Dose, a small wine-glassful.

By the Arawaak Indians.

Waru-mea.	Decoction of the bark.
Wara-ki-arú.	Ditto.
Kouk-kura	Ditto.
Hyawa.	Ditto.
O-lu.	Ditto.
Yahu.	Ditto.

Moka. Prepared by scraping off the bark (one stick will be sufficient for a dose), boiling it in water (simmering only).
A wine-glassful a dose.

Kokri-u

Decoctions of the following barks are also used as emetics :—

Wild Coffee, or Cafie-balli. Among the Caribisi Indians this shrub is known under the name of "Tumoka," and the decoction is thus prepared :—Having taken the tree up by the roots, a piece of from 8 to 12 inches is cut off (the roots are always preferred), and subjected to the heat of a brisk fire, till slightly charred ; the piece is then exposed to the sun for one day. The charred portion is scraped off, and the remaining bark sliced and steeped in water (as much as would fill a small coffee-cup), squeezed until all the juice is extracted ; strained and administered. It is considered a powerful emetic, and never used except in extreme cases of bilious fever, and not even then unless every other means have failed.

Red Mora.	Pacuri.	Arrahuru.
Marsaballi.	Arrara.	Curuballi.

As PURGATIVES, decoctions of the following barks are used :—

By the Accawai Indians.

Pye-oke. Decoction of inner bark. A wine-glassful taken hot is said to be a strong purgative.

By the Arawaak Indians.

Mora (black). Used as a purgative in bellyache.

By the Caribisi Indians.

Arra-ara.	Inner bark.
Tapu-sepu.	Ditto.
Aratuk-kra.	Ditto.
Barawacashi.	Ditto. In cases of fever.
Kir-ri-ri.	Ditto. Ditto.
Kunnussa.	Inner bark.
Apperima.	Ditto.
Atabe-reri.	Ditto.

AS AN ANTHELMINTIC :—

By the Accawai Indians.

- Arri-ly, or Yari-yari. The bark is scraped off and boiled. The decoction is drunk hot. Dose, a wine-glassful. Used in all cases of worms.

AS A DIURETIC :—

Warracuri. In this case not a decoction, but the recent juice of the plant is used.

AS A TONIC AND STOMACHIC :—

By the Arawaak Indians.

Boe-ari (*Mikania amara*, Willd?). This bush rope is in common use throughout the colony. It is exceedingly aromatic, and forms an excellent ingredient in stomachic bitters.

The decoction of the following bark is used as an antidote to the BITE OF THE BUSHMASTER, and all other snakes :—

Arecadako. It is said to be used with great success.

MEDICATED BATHS seem to be in general use among the various tribes of Indians in the cure of disease. Decoctions of the following barks are used as baths in FEVER :—

By the Accawai Indians.

Acai-u. Inner bark scraped and boiled. The decoction is used as a bath in all cases of severe fever.

Ai-wy.

Para-ru. Used in severe fever.

Ponu-ek.

Akar-ki-e.

Erewee.

Ma-tu-a.

Mara-try.

By the Caribisi Indians.

Napi-biti. Decoction of inner bark.

Hyawa. Ditto

Assemeri.

Ko-pia.

Ereu-u-ru.

AS A BATH IN SMALL POX :—

By the Accawai Indians.

Sepi. Decoction of inner bark.

Carapa. Ditto.

Urab-ek.

By the Arawaak Indians.

Sera-da.
Kulaballi.

By the Caribisi Indians.

Silverballi (white).
Arourama. Decoction of inner bark.
Gabu-baru.

AS A BATH IN MEASLES :—

By the Arawaak Indians.

Awati.

By the Caribisi Indians.

Kope-e.
Maruca.

AS A BATH IN RHEUMATISM AND GOUT :—

By the Arawaak Indians.

Dai-i-rena. Said to be very efficacious.

AS A BATH IN HEADACHE :—

By the Accarwai Indians.

Karaque-et.
Mare-e. In severe headache.
Kram-bi-uri.
Ko-me. The inner bark is steeped in warm water, and the infusion used as a bath.

The decoction of the following bath is used TO DISLodge VERMIN, SUCH AS FLEAS, TICKS, &c. :—

By the Arawaak Indians.

Arumata. Said to be the most effectual remedy for the purpose known to the Indians.

The infusion of the following bark is administered to SICK DOGS :—

By the Accarwai Indians.

Makarapa. Prepared by scraping the bark, and steeping it in water.

The well-known URALI POISON is prepared from the bark of the Urali (*Strychnos toxifera* ?).

MEDICINAL AND OTHER BARKS. From various contributors.

Used in DYSENTERY and DIARRHOEA (as decoctions) :—

Guava root.
Mora bark.
Cashew „

Used in the disease called "CARIBISI SICK :"—

Bullet-tree bark.
Cork-wood "

Used as a BATH IN FEVER :—

Casawaik bark.

Used in AFFECTIONS OF THE URINARY ORGANS :—

White Cedar bark.

Used as a DRESSING FOR SORES :—

Plum bark.
Cashew "

Used in the "ITCH," and in that form of the disease known as "GROUND ITCH :"—

Aracasouwer bark.
Crab-wood "

Used as an EMETIC :—

Karababalli.
Bullet-tree bark.

Used as a PURGATIVE :—

Jumby root.

Used as an ANTIDOTE FOR THE BITE OF SNAKES :—

Aramatta bark.

Used as FISH POISONS :—

Hiari, Bush rope.
Conami bark.

Used as a DYE by the Caribisi Indians :—

Kometie. Prepared by cutting the bark into small pieces, and boiling in water.

Cuinac tree, root and bark.

BARKS USED IN TANNING. These barks are all used in tanning by the Indians, but the amount of tannin contained in them is very various, and in some of them in but very small quantity.

By the Arawaak Indians.

Sirada.
Comacoballi.
Moreraro.

By the Caribisi Indians.

Kakaralli.	Watara.
Pa-ta-mu.	Ataba.
Sema-cana.	Okie-u.

Ama-u.	Webo-pie.
Para-oe.	Silverballi (black).
Yabu-baru.	Simaruba.
Cariaco-sekira.	Assakurie.
Teputa.	Barawacasie.
Mare-mare.	Moko.
Atabe-Werie.	Toko.
Amatu-barie.	Wallaba.
Pare-ku.	Tabusipee.
Tabuse-ku.	Slarha.
Kiddy-kiddy.	Wai-pope.
Tapong.	Minapo.
Arourama.	Moraballi.
Minekei.	Names unknown (3)
Merie.	

SECTION D.

WOODS FOR BUILDING AND OTHER PURPOSES.

Specific Gravity.		Height.	Diameter of Trunk.	Squares.
1.087	COUTABALLI (<i>Theobroma, sp.</i>) Used for house-frames ...	72 ft.	15 in.	12 in.
	SIMARUBA (<i>Simaruba officinalis</i> , <i>Dec. S. Amara</i> , Aubl.). Used for inside work of houses ...	80	24—30 in.	
.782	CARISIRI, or black lance-wood. Used for spars, beams, and gig-shafts ...	50	4—8 in.	
	WADADURI, or monkey-pot (<i>Lecythis grandiflora</i> , Aubl.). Used for furniture and staves for hogsheads ...	106	30 in.	
	KAKARALLI (<i>Lecythis Ollaria</i> , Linn.). Used in the construc- tion of wharves, sluices, &c. It is durable in salt water, and resists the attacks of in- sects. The inner bark is used as a covering for cigars ...	90	18 in.	6—14 in.
.836	ITIKIRIBOURA-BALLI, or tiger- wood (<i>Machærium Schom- burgkii</i> , Bent.). Spotted like a tiger ...	130	20 in.	
1.128	MORABALLI, or Mooraballi. Used for beams and boards for buildings. Bark used as a fish poison ...	100	20 in.	

Specific Gravity		Height.	Diameter of Trunk.	Squares.
	SARABADANI	110 ^h	20 in.	8—10 in.
	WYMERISHY	90	22 in.	
	CUCURITIBALLI, or KOQUERITIBALLI. Used for beams and rafters	60—90	20—22	
	BROWN CEDAR, Carana, or Mara (<i>Cedrela odorata</i> , Linn.). Used for bookcases, chests, wardrobes, and Indian canoes. Yields a gum like gum-arabic	150	4 or 5 ft.	10—36 in.
•610	SIRUABALLI, or Silverballi, yellow variety (<i>Nectandra</i> , or <i>Oreodaphne</i> , sp.). Used for planking of boats and vessels, masts and booms. Resists attack of insects. There is also a black, white, and brown variety	110		10—14 in.
•564	GREY SILVERBALLI.			
•483	PALE " ASSEPOCABALLI. Used for furniture and cabinet-work ...	80 ft.	14 in.	
•890	HOUBABALLI ditto ...	100		15—20 in.
1-029	MORA (<i>Mora excelsa</i> , Benth.). Used in ship-building. This, with Greenheart, ranks among the eight first-class woods at Lloyds'	120—150		18—20 in.
	BURUEH, BULLY, or BULLET-TREE (<i>Sapota Mulleri</i> , Miq. ?). Used for house-frames, flooring, wheel-spokes, palings, posts, beams, machinery. Produces the gum called Ballata	116	6 ft.	20—30 in.
•827	MARIWAYANI, or PURPLEHEART. (<i>Copaifera pubiflora</i> , and <i>bracteata</i> , Benth.). Called by the Arawaaks "Courabarel." Used for furniture, mortarbeds, machinery; woodskins are made from the bark.			
•667	CARABA, or CRAB-WOOD (<i>Carapa Guianensis</i> , Aubl.). Used for furniture, flooring, masts and spars, sugar hogsheads,			

Specific Gravity.		Height.	Diameter of Trunk.	Squares.
	shingles. Crab oil is obtained from the seeds ...	80 <i>ft</i>		14—16 <i>in</i> :
1-280	BANYA, BANNIA, or EBONY (<i>Swarzia</i> ?). Used for picture-frames, inlaying, veneering, Indian war clubs ...	50	8—10 in.	
	CUAMARA, or TONKA (<i>Dipteryx odorata</i> , Willd). Used for shafts, mill-wheels, and cogs. Yields the Tonquin bean ..	70		18—20 <i>in</i> :
	MANIBALLI, or CANDLE-WOOD (<i>Apocynaceæ</i> ?). Used for framing houses. From a variety of this tree the Indians obtain the wax (Karman, or Carimani) which they use in fastening their arrow-heads, hooks, &c.	50	8—10 <i>in</i> :	
1-333	BOUBRA-COURRA, PAIRA, LETTER-WOOD, or SNAKE-WOOD (<i>Piratinera Guianensis</i> , Aubl.; <i>Brosimum Aubletii</i> , Poep.). Used for veneering, picture-frames, small pieces of furniture, walking-sticks, Indian bows ...	60—70	2—3 ft.	
	HUCOUYA, or IRON-WOOD ...	130		
1-162	WASHIBA, or BOW-WOOD. Used for Indian bows and war clubs ...	110		
-951	SIPIRI, BIBIRU, or GREENHEART, yellow variety (<i>Nectandra Rodiei</i> , Schomb.). Used for planking vessels, house-frames, wharves, bridges, &c. Ranks as one of the eight first-class woods at Lloyds'...	90		18—24 <i>in</i> :
1-210	DITTO. Black variety.			
1-138	DUCALIBALLI. Used for cabinet and turning-work ...	60	20 in.	
	ITABALLI (<i>Vochysia tetraphylla</i> , Aubl.). Used for corials, staves for sugar hogsheads, and oars ...	80	3—4 ft.	
	HITCHIA. Used for spars and rafters of houses.			
	SIMIRI, or LOCUST-TREE (<i>Hymenæa Courbaril</i> , Linn.).			

Specific Gravity.		Height.	Diameter of Trunk.	Squares.
	Used for furniture, mill timbers, engine-beds, tree-nails, machinery. Woodskins are made from the bark. Yields the gum-animi of commerce.			
·812	UBUDI, or WILD CASHEW (<i>Anacardium rhinocarpus</i> , Dec.). Used for cabinet-work	80ft.		10—12in.
1·032	HYAWABALLI, or INCENSE-TREE (<i>Icica heptaphylla</i> , Aubl.; <i>Omphalobium Lambertii</i> , Dec.). Resists attacks of insects. Yields a fragrant gum ...			10—12 in.
·888	ARRARA, or TRYSSIL (<i>Pentaclethra filamentososa</i> , Benth.). Used for furniture and staves.	50	18in.	
1·122	WAMARA, or BROWN EBONY. Used for ship-building and furniture	60		6—12 in.
	WYBIMA.			
·932	SOUARI (<i>Caryocar tomentosum</i> , Dec.; <i>Pekea tuberculosa</i> , Aubl.). Used in ship-building, for mill timbers, planks. Yields the delicious Sawari nut	120		20 in.
·967	TURANIRA, TOURANERO, or BASTARD BULLY-TREE (<i>Humirium floribundum</i> , Mart.). Used for framing timber, spokes, &c.	80		25 in.
	YARURA, MASSARA, or PADDLEWOOD (<i>Aspidosperma excelsum</i> , Benth.). Used for paddles, axe handles, cotton gin rollers, floats for paddle-wheels, &c.... ..	80	5—6 ft.	
	MARSIBALLI, or ACOURIBROED. Used for rafters, beams, spars, internal work of houses, &c.	60		13—14 in.
	ETOOIE, or ITURI WALLABA.			
·836	SURADANI. Used for corials or canoes, timbers, rails, naves and felloes of wheels, planks and covering boards of colony craft	50		14—20 in.

Specific Gravity.		Height.	Diameter of Trunk.	Squares.
	CURUBERANDA, or BITTER WOOD. Used in ship and boat-building			14—20 <i>lin</i> :
1·154	CABACALLI. Used in boat-building. Resists the attack of worms. Timbers and knees for vessels made from the branches	70 <i>ft</i>		12—18 <i>lin</i> :
	TATABOO, or TATABA. Used for mill timbers, planks, ship-building, gun-carriages, coffee-stamps	60		
·945	WALLABA (<i>Eperua falcata</i> , Aubl.). Used for house-frames, shingles, staves, palings, and posts. Yields an oil and gum resin having medicinal properties ...	70		15—20 <i>lin</i> :
1·132	HACKIA. Known in the colony as Lignum Vitæ. Used for mill-cogs and shafts, furniture, &c.	60		16—18 <i>lin</i> :
	SAND MORA. SILVERBALLY. Variety known as "Hoorocundy Ja-Mar." ASSASI, also called EPERIPESSI. A hard, small, framing timber. BOORUMA. WARRACOORI, or WHITE CEDAR (<i>Icica altissima</i> , Aubl.; or <i>Cedrela</i> ?). Used for frame and inside work of houses, staves, oars, paddles, canoes, &c. KOROKURA. Used for masts, timbers, knees of schooners, mill timbers and planks, corials. DARANA. HALCHEBALLI. EMOROO, or AMOUROO. Variety of the black Yari-yari, or Lance-wood. Used for logie spars, beams, &c.		5—6 in.	
	HOOLOO, or HOG-PLUM (<i>Spondias lutea</i> , Linn.). Bark used in tanning.			

Specific Gravity.		Height.	Diameter of Trunk.	Squares.
·746	DUCA.			
·744	EURABALLI.			
·734	YELLOW SANDERS.			
·727	ARUMATA.			
·706	LIME.			
·682	GUAVA.			
·678	ARRACUDOCU.			
·652	DOURU.			
·592	COURUCURALLI.			

Specific gravity of English and other woods to afford a comparative view :—

Lignum Vitæ ...	...	...	1·333
Dutch box ...	...	...	1·328
Heart of oak ...	...	...	1·170
Ebony ...	...	...	1·117
Red Brazil wood ...	...	...	1·031
Water ...	...	...	1·000
Dry oak ...	...	...	·925
Beech ...	...	...	·852
Ash ...	...	...	·845
Alder ...	...	...	·800
Maple ...	...	...	·755
Walnut and Elm ...	...	...	·671
Willow ...	...	...	·585
Fir ...	...	...	·498 to ·550
Corkwood ...	...	...	·240

PORTION OF A GREENHEART PILE, which formed part of the bridge built from the beach to the shell bank outside Fort William Frederick in 1843, and was destroyed by the wash of the sea in a few months afterwards. This pile was taken up in 1861, having been nearly eighteen years in water, abounding with the *Teredo navalis*, or ship-worm.

PORTION OF A GREENHEART PILE, driven on the Atlantic face of the sea-wall in 1855, in the same week with and adjacent to the Mora pile. (See below.) To show that Greenheart, when free from sap, is exempt from erosion by the teredo.

PORTION OF A MORA PILE, driven on the Atlantic face of the sea-wall in 1855, in the same week with the adjacent Greenheart pile. (See above.) To show the preference of the teredo for this timber.

PORTION OF THE FENDER CAP of the ferry steamer stelling, Demerara river. This has been exposed to all states of the weather, wet and dry, for upwards of twelve years. To show that the sapwood of Greenheart readily decays, and that a beam may be, to outward

appearance, worthless, the heart being at the same time perfectly sound.

TWO PIECES OF CALABASH WOOD (*Crescentia cujete*, Linn.). An under-box for a pump made of the same, from a tree of ten years' growth. An under-box of the same material has lasted seven years, and is still fit for use. Working boxes for pumps made of this wood are equally durable.

LOO TABLE, exhibiting sixty-five different kinds of woods, the growth of the colony. Made by Andrew Hunter, Georgetown. The top is inlaid in a cruciform pattern, with rays springing from the centre. Between the intersections in the centre compartment are nine glass cups, containing small samples of the principal products of the colony. The middle cup contains native gold, and a piece of quartz with gold adhering to it, from the river Cuyuni: in the other cups are sugar (vacuum pan and Muscovado), rum, coffee, rice, cotton, gum, and Indian corn.

- | | | |
|-----------------------------------|-------------------------------|---------------------|
| 1. Bourra-courra, or letter-wood. | 23. Culiseri. | 44. Lima. |
| 2. Suradani. | 24. Sand mora. | 45. Eperipessi. |
| 3. Coutaballi. | 25. Bully-tree. | 46. Hyawaballi. |
| 4. Turiballi. | 26. Fiddle-wood. | 47. Wourali. |
| 5. Silverballi. | 27. Pale hyraballi. | 48. Banya. |
| 6. Logwood. | 28. Simaruba. | 49. Cururukaki. |
| 7. Cururuburari. | 29. Itikiribouraballi. | 50. Ducaliballi. |
| 8. Uriballi. | 30. Arnatto. | 51. Moraburi. |
| 9. Moraballi. | 31. Touranero. | 52. Crab-wood. |
| 10. Mamme. | 32. Tibicusi. | 53. Gooseberry. |
| 11. Brown silverballi. | 33. Wyaballi. | 54. Greenheart. |
| 12. Coumaraballi. | 34. Houbaballi. | 55. Orange. |
| 13. Wallaba. | 35. Blood-wood. | 56. Grape. |
| 14. Blackheart. | 36. Carisiri. | 57. Guava. |
| 15. Silbadani. | 37. Cherry. | 58. Yaruri. |
| 16. Hymorakusi. | 38. Tryssil. | 59. Accouribroed. |
| 17. Wamara. | 39. Mora. | 60. Couracourabari. |
| 18. Simiri, or locust. | 40. Lana. | 61. Tooroo. |
| 19. Hyraballi. | 41. Ducama. | 62. Cedar. † |
| 20. Sapodilla. | 42. Yari-yari, or lance-wood. | 63. Cabacalli. |
| 21. Cretti. | 43. Huruwassa. | 64. Sun-wood. |
| 22. Wadaduri. | | 65. Purpleheart. |

LOO TABLE, made by Joseph Delph, Georgetown. The pedestal is of Zebra-wood. The top is inlaid with 913 specimens of wood, the growth of the colony, beautifully grouped and arranged in circles and segments of circles. List of the woods used :—

- | | | |
|-------------------|-----------------|---------------------|
| 1. Bartaballi. | 5. Guiana maho- | 8. Arumata. |
| 2. Wild tamarind. | gany. | 9. Fustic, variety. |
| 3. Leopard-wood. | 6. Marvadeen. | 10. Haramorea. |
| 4. Ducaliballi. | 7. Souari. | 11. Wild orange. |

12. Tonquin bean.	20. Orange.	27. Yaruri.
13. Guiana rosewood.	21. Guiana lignum- vitæ.	28. Star-apple.
14. Mammee.	22. Sea-side grape.	29. Liquorice.
15. Hitchiaballi.	23. Guiana ebony.	30. Sapodilla.
16. Cherry.	24. Tibicusi.	31. Monkey apple.
17. Houbaballi.	25. Zebra-wood.	32. Wallababalli.
18. Fustic, variety.	26. Wamara.	33. Crab-wood.
19. Purpleheart.		

CABINET, made in London, of letter-wood and other ornamental woods from British Guiana.

* * This cabinet was presented to the Prince of Wales by the Committee of the Royal Agricultural and Commercial Society of Guiana, and graciously accepted by His Royal Highness.

SECTION E.

INDIAN MANUFACTURES & MISCELLANEOUS ARTICLES.

	Speci- mens.
"BUCK HOUSES," or models of the huts of the Indians of British Guiana, containing in miniature all the articles usually found in Indian "benaboos"	2
CROWNS OF FEATHERS worn by Indians	19
NECKLACES, worn by Indians; composed of the teeth of the Peccary, or wild hog, the Cayman, the Alligator, the jaguar, the Byarri, a species of fish, and certain seeds ...	18
"CUYUS," or "QUEYUS," the entire dress of Indian women, of the Accawai tribe	10
STANDS FOR POTS, used by the Indians, and made from the seed capsules of the Cucurit Palm (<i>Maximiliana regia</i> , Mart.).	2
"IWE," or DISCS OF BONE, worn by men of the Accawai tribe round their arms	2
BRACELETS OF BEETLES' WINGS (<i>Buprestis gigas</i>)	1
INDIAN HAMMOCKS, made of native cotton	3
"the fibre of the Ita Palm (<i>Mauritia flexuosa</i> , Linn.).	17
"WARRI-WARRI," or INDIAN FANS, made of leaves of the Acuyuru Palm	20
"AWIARRI," or BAMBOO FLUTES, made by the Accawai and Caribisi Indians. Some of these are played by breathing into them through the nose	8
FLUTES, made of the bones of the jaguar, by Indians of the Pomeroun River*	6

* The Caribbees formerly made their flutes out of the femoral bone of their slain enemies, and this custom prevails still among some tribes on the Rio Negro and the Amazon; but the Indians of British Guiana make them of the bones of the jaguar and the red deer.

	Specimens.
CONJURING WAND, hung with seeds of the Sibení, and rattled by the Indian píai men, or conjurors, at their dances *...	2
MUSICAL INSTRUMENTS, used by the Indians of the Essequibo river	3
INDIAN DRUMS	3
SPINDLE WITH COTTON, prepared by a woman of the Caribisi tribe	1
LETTER CASES,	12
CIGAR DITTO, AND† {made from a reed called Iturite (<i>Maranta</i>)	21
"SHAAK-SHAAKS," {obliqua, Rudge)	4
"PAGALA," or PEGALIS, nests of; each nest containing twelve. Made from the Iturite reed	4
"MATUTIS," or SIEVES, used as receivers for sifted Cassava meal	2
BASKETS, made by the Accawai and Caribisi Indians	2
"CATAURIS,"† used by Indian women to carry heavy weights. These baskets are carried on the back, depending by a strap from the forehead	2
QUIVERS OF BAMBOO, containing arrows dipped in the celebrated Urali poison, a scratch from which, it is stated, would produce almost instantaneous death. These arrows are discharged by the blowpipe. The quiver is generally accompanied by the <i>maxilla</i> of a fish, which is used for partly cutting the poisonous part of the arrow, so that that portion may break off and remain in the wound. The cutting is effected by rapidly turning the arrow between the teeth of the <i>maxilla</i>	2
FEATHER CASE, made of the Mucuru reed by the Caribisi Indians to preserve the feathers of the Macaw's tail, with which they decorate their crowns.	
CAPS, worn by the Indians, and made of the spathe which encloses the undeveloped flowers of the Trolley Palm (<i>Manicaria saccifera</i> , Gaert.). The spathe is soaked in water, and then distended to the required size	4
"MACQUARI" WHIPS, made of Nibbi, a bush rope, by the Mayangong Indians. These whips are used by the Indians at their Macquaris, or funeral dances. This dance is a kind of single combat to test the power of	

* Attached to it are tigers' claws, which enable him (so he persuades his dupes) to change himself into a tiger, whenever he thinks it convenient.

† Tobacco is only used by the Indians of Guiana in the form of cigars, and there is little doubt that Europeans have borrowed the custom from them. The wrapper is made of the liber of a *Lecythis*, which is beaten into a number of distinct layers.

‡ "Our effects were packed in small tin canisters, each of the weight of about 25 lbs., which the Indians carried on a broad band, suspended from the forehead, either plaited of the young leaves of the Ita palm (*Mauritia flexuosa*), or consisting of a piece of a bark of *Lecythis*. To make their load quite steady, it was fixed by other lashings round the shoulders, in the way soldiers carry their knapsacks. This is the general mode which the Indians adopt, whether male or female, for carrying burdens."—Schomburgk's "Journey to Roraima."

enduring pain. One of the combatants standing firmly on one leg, puts forward the other, which his adversary lashes with all his might, stooping and springing at each blow to add force to it, until the other can endure it no longer. The combatants then change positions, and the whipper in his turn offers his leg to the lash	Specimens.	
BAMBOO CASES, containing Indian dyes		14
" Case for fishhooks.		5
TORCHES, made of Coutaballi wood, and used by the Indians to light them when shooting fish with bows and arrows by night		4
BRUSHES, made of the fibre or root of a plant		2
"HAHAS," or INDIAN SHIELDS, made from the Ita Palm. These shields are used by the Warrau Indians at one of their games, "which is played," says Sir R. Schomburgk, "in parties, two against two, and the champions, painted and dressed in the distinguishing mode of their tribes, show their athletic skill by attempting to push each other from a space of ground by means of the haha, which resembles a shield. It appeared to us an innocent pastime, which gave agility to their limbs, and displayed to the greatest advantage their muscular power and fine proportions"		4
"SIMARRI," or CASSAVA GRATER.* Like much of the Indian "pegall work," it shows the meandering pattern so common in Assyrian, Egyptian, Etruscan, and Greek ornamentation... ..		3
"MATAPIS," or CASSAVA SQUEEZERS, made of a reed called Mucuru. This instrument is used by the Indians for expressing the juice from the Cassava root, after it has been grated on the Simarri. It is first compressed and shortened as much as possible to increase its diameter; and is then		

* The Tarumas are famed as manufacturers of cassava graters, which they barter to a great extent with the neighbouring nations, chiefly the Wapisianas, who carry them to the colony, where they receive about a Spanish dollar (4s. 2d.) for each. These graters consist of a flat board from 2½ to 3 feet in length, and from 15 to 18 inches broad, and which is prepared from the soft wood, or outer layers, of the purpleheart tree (*Copaifera*, spe.). After it has been properly smoothed, and a slightly concave form given to it, the Indian marks it with cross lines, along which he beats in, one by one, small angular pieces of a hard rock (very compact green stone), which he calls *tempé*, and which is found a few days' journey up the Cuyuni. The angular points project about a line and a half out of the wood. The board being covered with these stony asperities, he takes the milk of a tree called Hennicarro, which he colours with Roucou or arnatto (*Bixa orellana*), and spreading it equally over the board, it serves as a glue in fixing the rocky fragments, besides giving a varnish to the whole. It is afterwards painted fancifully according to Indian taste, and exposed to dry in the shade, when the grater is completed. It is not possible to complete a grater in less than five or six days, including the fetching and preparation of the materials. Nevertheless, he exchanges it for a common knife with the Wapisiana, who carries it 400 or 500 miles, and sells it for a dollar. Time is, however, of no value to the Indian; and the inclination to work at the particular job is his sole inducement, regardless of the little reward of his labour.—Schomburgk's "Journal," June, 1843.

filled with the grated root and suspended from one of the tiebeams of the benab, or hut. It is then stretched by a lever passed through the lower loop, to the long end of which a weight is attached. By this means the capacity of the Matapi is diminished by nearly one-third; the juice is thus expressed, and is caught in vessels placed to receive it. The mass, deprived of its juice, is now gradually dried, and if required, some of the flour, after it has been sifted, is put upon an iron plate over a fire; and in a few minutes a cake, resembling the oatmeal cake in appearance, is ready. The expressed juice is a violent poison, but when boiled is converted into the harmless Cassareep. (Page 122.)...

"MASWAH," or INDIAN FISH TRAPS	...	...	...	...	2
INDIAN FISHHOOK.					2
MINIATURE "WOODSKINS," "Buckshells," or "Adadas" (Indian Canoes), made of the bark of the Mariawayana, or Purple-heart tree (<i>Copaifera pubiflora</i> and <i>bracteata</i> , Benth.)	...				6
"WOODSKIN," or "BUCKSHELL," of small size, from ditto. These canoes are used by the Indians in the narrow creeks, where they can easily be hauled across shallows, or over fallen trees; but when of larger size, are used also in the great rivers, and even for descending or "shooting" the rapids, their buoyancy carrying them safely through the boiling surge. The seats are formed of light pieces of wood, resting against the sides of the craft.					
PADDLES. Used by the Indians in their corials, or canoes, or in their woodskins. The larger sort are used for steering					8
"PAMICARI," or hat of wickerwork, made by the Mayangong Indians.					
INDIAN BOWS	...	...	...	...	18
INDIAN ARROWS	...	...	...	...	185
BLOWPIPES. The blowpipe of the Indians consists of an inner and outer tube, the latter being sometimes covered with ornamental "pegall work." The inner tube is a single internode of the <i>Arundinaria Schomburgkii</i> (Benth.). These internodes are sometimes 16 feet in length. The arrow is inserted into the tube, having a dossil of cotton around the butt-end; aim is then taken, and the arrow projected by a sudden expiration					6
POISONED ARROWS for ditto. The poisoned spike which is fixed to the arrow is made of the Coucourit Palm, and is in several places cut nearly half through. The Urari is put upon it with a small stick, and the spike is then dried in the sun or by the fire. This process is three times repeated. The spike fits in a square hole at the end of a piece of tough wood from the Yari-yari tree (<i>Anonaceæ</i>), and may be removed if desired. In order to prevent accidents, and to secure the poison against the influence of the weather, a joint of bamboo covers the poisoned					

spike, which is taken off when the arrow is to be used. But generally these poisoned spikes are carried in a small box, made of bamboo, and provided with a cover of deer-skin, ornamented with cotton strings. In order to ensure that the poison takes proper effect, the spike is cut half through in several places, so that when the animal is struck, the weighty part of the arrow breaks off, leaving part of the poisoned portion in the body of the animal. As the arrow falls to the ground, the Indian may easily take it up and fix another spike to it, when it is ready again for use.

- WAR CLUBS. When the Indian is going to war, he seldom takes more than five or six arrows; when these are used he comes to close quarters, and resorts to his club, which is slung round the wrist. The club is his constant companion, and even when at peace they are rarely seen without it 21
- WAR CLUB OF WASSUARA WOOD.
" WASHIBA ditto.
- TASSEL OF TOUCAN SKINS, worn by the Accawai Indians attached to a necklace of Peccary teeth. The tassel is worn hanging down the back.
" of the skins of the *Dacnis* (*Dacnis Cceruleocephala*).
- FIGURES OF CLAY, made by an Indian of the Caribisi tribe, and representing human beings and an armadillo.
- INDIAN POTTERY, Dawadda, or pots, bowls, and plates, made by the Caribisi Indians 9
- "BUCK POTS." These pots, though of rude workmanship and fragile, are very durable, and invariably used for cooking the Indian dish, "Pepper pot." When the time of their meal approaches, the pot with its contents is put before the Indian on the ground, and a piece of cassada bread having been placed on a substitute for a plate, he squats before it, and uses his fingers in lieu of knife and fork. The Macusis and the neighbouring tribes form this plate of the young leaf of the Acuyuru Palm 2
- "TUCUWARI," goglets, or water-bottles, double, made by the Caribisi Indians 5
- "TUCUWARI," goglets, or water-bottles, single, made by the Caribisi Indians 6
- DISHES, made by Caribisi Indians 4
" of small size.
- "CORIAL," or CANOE, 28 feet long, 3 feet wide, 1 foot 5 inches deep, made of "Curahuri," or "Kuruhuru" wood, by Caribisi Indians, with five paddles of "Yaruri" wood. Canoes of this description are much used by the Indians; they are hollowed out of the trunk of a single tree, and are sometimes of great size. One of those employed by Schomburgk, during an expedition into the interior, was 42 feet long, and 5½ feet wide.

"WOODSKIN," or "BUCKSHELL,"* of large size, about 20 feet long. The bark of which it is made is probably that of the Purpleheart tree.

LEATHER, tanned in the colony with *Hitchia* bark.

SECTION F.

NATURAL HISTORY.

I. SEEDS, FUNGI, AND IMITATIONS OF FRUIT.

DACUMBALLI, seeds of. Used as food by the Indians, when grated and mixed with cassava.

MONKEY-COMB, or seeds of the Duru-tree.

AWARABULLY (*Astrocaryum Awara*?), seeds of. A small palm 20 or 30 feet high. The trunk and leaves are covered with formidable prickles, which the Indians use as pins. The trunk is used as posts in constructing cattle-pens, &c. A favourite drink is prepared from the ripe fruit. Handsome bracelets and rings are carved out of the nut, which is black, very hard, and bears a high polish.

INDIAN OR BUCK SHOT. The seed of an undetermined species of *Canna*, variously supposed to be *C. Coccinea*, *C. lutea*, *C. occidentalis*, and *C. Achiras*. It is used as shot by the Indians. From the rhizomes of the plant is obtained the *Tous-les-mois* starch of commerce. It grows wild in this country.

HATI-TREE, seeds of. Used by Indians as a bait for fish. The tree yields India-rubber.

TROOLIE PALM (*Manicaria saccifera*, Gaert.), seeds of. This palm is used extensively in thatching houses.

CASTOR OIL PLANT (*Ricinus communis*, Linn.), seeds of. From these the well-known medicinal oil is procured.

COUTABLLI-TREE (*Theobroma*, sp. ?), seeds of.

CRABWOOD-TREE (*Carapa Guianensis*, Aubl.), seeds of. The oil from these seeds is used in the colony for burning, and also as a hair-oil.

ARNATTO, OR ROUCOU (*Bixa orellana*, Linn.), seeds of. A red dye is procured from the viscous pulp or pellicle surrounding these seeds.

SNAKE-NUT-TREE (*Ophiocaryon paradoxum*, Schomb.), seeds of. This tree has received its name from the peculiar coiled embryo of the seeds, resembling a snake.

ACUYURU PALM (*Astrocaryum aculeatum*, Meyer), seeds of. Grows to the height of 60 or 70 feet. The woody part of the stem is hard, and takes a fine polish, and is used for cabinet-

* "Hitherto, thanks to a kind Providence, we had been successful, though we came from time to time in rough contact with some sharp rock, which pierced our skirts, none of them half an inch in thickness, and caused the water to spout in like a fountain, when pieces of shirts and trousers were resorted to for stopping the leak, and which always proved sufficient for the purpose."—*Schomburgk's "Tours."*

work, walking-sticks, &c. The fruit, about the size of a hen's egg, contains a large seed covered with pulp, from which a bright yellow oil is obtained. Both pulp and oil are edible.

PERICARPS, OR SEED-VESSELS, of different species of *Lecythis*.

SOUARI-TREE (*Caryocar tomentosum*, Dec.; *Pekea tuberculosa*, Aubl.), seeds of. This is the delicious nut known as the Souari or Sawari nut.—2 specimens.

SOAP-BERRY-TREE (*Sapindus saponaria*, Linn.), seeds of. Used to make bracelets, necklaces, and other ornaments.—3 specimens.

JOB'S TEARS (*Coix lachryma*, Linn.), seeds of. Used to make necklaces and other ornaments.—2 specimens.

ITA PALM (*Mauritia flexuosa*, Linn.), seeds of. This palm grows to the height of 50 or 60 feet. The fibre of the young leaves, called "Tibiseri," is used in making cord, hammocks, &c., by the Indians. An intoxicating, subacid drink, called "Bel-teerie," is made from the fruit, and used by the Indians at their dances.

PERICARP, OR SEED-VESSEL, of *Couratari Guianensis*, Aubl.

MONKEY-POT-TREE (*Lecythis ollaria*, Linn.), seeds and pericarp of.

LOCUST-TREE (*Hymenaea Courbaril*, Linn.), seeds of. The Indians are fond of the farinaceous saccharine pulp enveloping the seeds.

BIGNONIA, SP.? seeds of.

PAROQUET COTTON-TREE, seeds of.

PALM (*Iriartea exorrhiza*, Mart.), seeds of.

LANABALLI-TREE, seeds of.

TOOROO PALM (*Enocarpus Batava*, Mart.), seeds of. This palm grows to the height of 60 or 70 feet. Its woody outside is used for inlaid work, billiard cues, walking-sticks, &c. Of the fruit a drink resembling chocolate is made.

CUCURITBALLI, seeds of.

CUCURIT OR KOQUERIT PALM (*Maximiliana regia*, Mart.), seeds of. This palm grows to the height of 30 to 40 feet. The fruit is excellent, and the young leaves before they emerge from the spathe constitute a delicious vegetable, which is sometimes made into a pickle. A fine clear oil is made by breaking the hard seeds in a wooden mortar, and boiling and bruising the kernels. From the ash of the midrib of the leaves the Accawai Indians obtain a substitute for salt.

DESMONCUS, SP.? seeds of.

PALM (*Astrocaryum*, sp.), called in the colony "Parapi," seeds of.

UBUDI, OR WILD CASHEW (*Anacardium rhinocarpus*, Dec.), seeds of.

BARACARA-TREE (*Erythrina Corallodendron*, Linn.), seeds of. Used as beads, and for ornamental purposes.

LANA-TREE (*Genipa Americana*, Linn.), seeds of. A dye of a beautiful bluish-black colour is obtained from the juice of the fruit. It is used by the Indians for painting their skin and colouring their pottery.

GREENHEART-TREE (*Nectandra Bodicei*, Schomb.), seeds of. From these, as well as from the bark of the tree, is obtained the well-known febrifuge, "Bibirine."

OCHRO (*Hibiscus esculentus*, Linn.), seeds of.—2 specimens.

ERYTHRINA, SP., seeds of.

PALM, SP., seeds of.

BRAZIL-NUTS,* or seeds of *Bertholletia excelsa*, H. B.

ACCAWAI NUTMEG (*Acrodictidum Camara*, Schomb.). Said to be an efficacious remedy in colic, diarrhoea, and dysentery.

TONKA, OR TONQUIN BEANS, seeds of *Dipteryx odorata*, Willd.—3 specimens.

CASE, containing different varieties of seeds.

BEANS, called cow-eyes.

FUNGI, collection of; belonging chiefly to the genus *Polyporus*.

LICHEN. Name not known.

SEEDS. Names not known.—27 varieties.

FRUIT AND VEGETABLE PRODUCTIONS OF THE COLONY, imitations of.

II. STUFFED ANIMALS.

				Specimens.
<i>Pithecia satanas</i>	...	...	Beelzebub monkey.	
" <i>leucocephala</i> , male and female	...	...	Whitefaced ditto.	
<i>Cebus apella</i> (capucinus?)	...	...	Common ditto.	
<i>Midas rufimanus</i>	...	...	Red-handed tamarin	2
<i>Chrysotrix sciureus</i>	...	...	Sakawinki	3
<i>Felis onca</i>	...	...	Common tiger.	
<i>Galictis vittata</i>	...	...	Martin, or weasel species	2
" <i>barbara</i>	...	...	Ditto, called "Hacka tiger."	
<i>Bradypus didactylus</i>	...	...	Two-toed sloth.	
<i>Dasyopus novemcinctus</i>	...	...	Armadillo.	
<i>Dasyprocta Aguti</i>	...	...	Rabbit, or Acouri.	
" <i>Acuchy</i>	...	...	Ditto, small species.	
<i>Mus decumana</i>	...	...	Rat.	
<i>Didelphys murina</i>	...	...	Small Yawarry.	
<i>Sciurus cestuans</i>	...	...	Squirrel	2
<i>Manis tetradactyla</i>	...	...	Ant-eater.	
<i>Felis sp.</i>	...	...	Tiger-cat.	
<i>Canis Azaræ</i>	...	...	Savanna dog.	
<i>Cebus capucinus</i>	...	...	Common monkey.	

III. SKULLS OF ANIMALS.

<i>Felix onca</i>	...	...	...	Common tiger.
" <i>pardalis</i>	...	...	...	Tiger-cat.

* "After two hours' march over undulating ground, through a dense forest and numerous swamps, we reached the region of the *Bertholletia*; and if ever a tree deserved the epithet of *excelsa*, it is this: the trunk rises straight to the height of 60 or 80 feet before it gives out its branches; the bark rugged, not unlike the British oak; the leaves dark-green and smooth; but, alas for the botanist! not a flower was to be found. The nut is 18 inches in circumference—about the size of a cocoa-nut—and contains from sixteen to twenty small nuts, rather sweet in taste; they are the common food of the monkey, the peccari, and other animals."

<i>Dicotyles torquatus</i>	...	...	...	...	Peccary.
" <i>labiatus</i>	...	...	...	...	Abuya.
<i>Myrmecophaga jubata</i>	...	...	...	...	Ant-bear.
<i>Cœlogenys paca</i>	...	...	...	...	Labba.
<i>Dasiprocta Acuchy</i>	...	...	...	...	Rabbit.
<i>Dasypus tridactylus</i>	...	...	...	...	Three-toed sloth.
<i>Cervus rufus</i>	...	...	...	...	} Horns of
" <i>simplicicornis</i>	...	...	...	...
<i>Dasypus novemcinctus</i>	...	...	...	...	Shell of
<i>Pristis antiquorum</i>	...	...	...	...	Saws of

COLLECTION OF SKINS of different animals, twenty-nine in number, belonging to the genera *Felis*, *Mycetes*, *Cebus*, *Myrmecophaga*, *Manis*, *Dicotyles*, *Lutra*, *Bradypus*, and *Nasua*.

COLLECTION OF TWENTY-SEVEN MOUNTED BIRDS, and a mounted *Dicotyles torquatus* (Peccary) with young ones. Among these are several species of hawks, one of which, belonging to the genus *Buteo*, is supposed to be new or undescribed; also various species of the genera *Bubo*, *Macrœcerus*, *Conurus*, *Rhamphastos*, *Nyctibius*, *Penelope*, *Rallus*, *Scolopax*, *Ibis*, *Tigrisoma*, *Nycticorax*, *Cancroma*; and a white heron, very rare in this colony.

IV. AND V. COLLECTION OF BIRD-SKINS.

						Speci- mens.
<i>Falco nigricollis</i>	...	...	...	Crab hawk.		
" <i>nudicollis</i>	...	...	...	Hawk, species.		
" <i>Guianensis</i>	...	...	...	Eagle of Guiana.		
" <i>melanops</i>	...	...	...	Streaked falcon.		
" or <i>Ictinia plumbea</i>	...	...	...	Hawk	...	2
" <i>femoralis</i>	...	...	...	Ditto.		
" sp...	...	...	...	Ditto.	...	9
" <i>collaris</i>	...	...	...	Bat hawk	...	2
<i>Bubo virginianus</i>	...	...	...	Owl.		
<i>Strix perlata</i>	...	...	...	Ditto.		
<i>Glaucidium passerinoides</i>	...	...	...	Ditto.		
<i>Otus</i> sp.	...	...	...	Ditto.		
<i>Ulula torquata</i>	...	...	...	Ditto.		
<i>Nyctibius grandis</i>	...	...	...	Goatsucker, or night swallow		2
" sp.	...	...	...	Ditto.		
<i>Nyctidromus Guianensis</i>	...	...	...	Ditto	...	2
<i>Antrostomus Cayennensis</i>	...	...	...	Ditto.		
<i>Opisthocomus cristatus</i>	...	...	...	Canje pheasant, or Stinking-bird.		
<i>Salpiza Marail</i>	...	...	...	Maroudi	...	2
<i>Ortalida Mot-mot</i>	...	...	...	Hannaqua	...	2
<i>Palamedea hornuta</i>	...	...	...	Horned screamer, or Ma-houca	...	2
<i>Eurypyga helias</i>	...	...	...	Sunbird.		
<i>Rallus gigas</i>	...	...	...	Carau.		

						Specimens.
<i>Rallus crepitans</i>...	...	...	Rail			
" sp. ...	...	...	Water-rail.			
<i>Porphyrio Martinica</i> ...	...	...	Water-hen ...	...	...	2
<i>Gallinula galeata</i> ?	...	...	Ditto ...	...	...	2
<i>Parra jassana</i> ...	...	...	Spurwing ...	...	...	2
<i>Crypturus cinereus</i> ...	...	...	Maam ...	...	...	2
" <i>variegatus</i> ...	...	...	Maam, small species	...	...	3
" <i>noctivagus</i> ?	...	...	Ditto ...	...	...	2
<i>Ortygometra Cayennensis</i> .						
<i>Perdix Guianensis</i> ...	...	...	Partridge.			
" sp. ...	...	...	Ditto.			
<i>Patagioenas speciosa</i> ...	...	...	Pigeon ...	...	...	2
<i>Chloroenas rufo</i> ...	...	...	Ditto.			
<i>Zenaida maculata</i> ?	...	...	Ditto.			
<i>Chamaepelia passerina</i> ...	...	...	Ground dove ...	...	...	2
<i>Talpocotia</i> sp. ...	...	...	Ditto ...	...	...	2
<i>Ardea cocoi</i> ...	...	...	Crane, or Hanora.			
" <i>Egretta</i> ...	...	...	White gaulding ...	...	...	2
" <i>virescens</i>...	...	...	Green ditto.			
" <i>cœrulescens</i> ...	...	...	Blue ditto.			
" <i>minor</i> ...	...	...	Small heron.			
<i>Tigrisoma tigrinum</i> ...	...	...	Tiger-bird.			
<i>Nycticorax Gardeni</i> ...	...	...	Night heron.			
" sp. ...	...	...	Ditto.			
<i>Cancroma cochlearia</i> ...	...	...	Imperial boatbill.			
<i>Platalea ajaja</i> ...	...	...	Spoonbill.			
<i>Ibis rubra</i> ...	...	...	Red Ibis, or Curri-curri ...	...	...	2
<i>Otis</i> sp., very rare.						
<i>Podoa Surinamensis</i> ...	...	...	Duckler.			
<i>Vanellus Cayennensis</i> ...	...	...	Lapwing ...	...	...	2
<i>Scolopax</i> sp. ...	...	...	Snipe ...	...	...	2
" sp. ...	...	...	Ditto.			
<i>Charadrius Virginianus</i>...	...	...	Plover.			
<i>Sterna magnirostris</i> ...	...	...	Sea-swallow, species.			
<i>Mergus Brasiliensis</i> ...	...	...	Wild duck, species			
<i>Macrocerus Aracanga</i> ...	...	...	Macaw.			
<i>Conurus versicolor</i> ...	...	...	Macaw paroquet.			
<i>Psittacus accipitrinus</i> ...	...	...	Parrot, species ...	...	...	2
<i>Picinus purpureus</i> ...	...	...	Ditto ...	...	...	2
" <i>menstruus</i> ...	...	...	Ditto ...	...	...	2
<i>Psittacula melanota</i> ...	...	...	Paroquet ...	...	...	2
<i>Rhamphastos erythrorhyncus</i> ...	...	...	Toucan, or Bill-bird	...	...	2
" <i>Toco</i> ...	...	...	Ditto.			
" <i>vitellinus</i> ...	...	...	Ditto. ...	...	...	2
<i>Pteroglossus Aracari</i> ...	...	...	Ditto. ...	...	...	2
" sp. ...	...	...	Ditto. ...	...	...	2
<i>Coronideus hyacinthinus</i> ...	...	...	Jay, species ...	...	...	2
<i>Gymnocephalus calvus</i> .						
<i>Gymnoderus fetidus</i>	2
<i>Crotophaga major</i>	Old witch	2

APPENDIX.

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Speci-
mens.

<i>Crotophaga ani</i> ...	Keel-bill ...	2
<i>Dryocopus lineatus</i> ...	Woodpecker ...	2
<i>Celeus cinnamomeus</i> ...	Ditto ...	2
„ <i>flavescens</i> ...	Ditto ...	2
„ <i>flavicans</i> ...	Ditto.	
<i>Picumnus minutus</i> ...	Ditto.	
<i>Campephilus rubricollis</i> ...	Ditto.	
<i>Chloronerpes icterocephalus</i> ...	Ditto.	
<i>Tripsurus hirundinaceus</i> ...	Ditto.	
<i>Coccygus Cayanus</i> ...	Cuckoo.	
„ <i>brachyterpus</i> ...	Ditto.	
<i>Dromococcyx phasianellus</i> ...	Lazybird.	
<i>Prionites momota</i> ...	Houtou ...	2
<i>Threnoedus militaris</i> ...	Chatterer.	
<i>Ampelis carnifex</i> ...	Firebird ...	2
<i>Xipholena pompadora</i> ...	Pompadour Chatterer ...	2
<i>Ampelis cotinga</i> ...	Purple-throated Cotinga ...	2
<i>Megaceryle torquata</i> ...	Kingfisher ...	2
<i>Chloroceryle bicolor</i> ...	Ditto ...	2
„ <i>Amazona</i> ...	Ditto.	
„ <i>Americana</i> ...	Ditto.	
<i>Bucco Tamatia</i> ...	Barbot ...	2
„ <i>Macrorhynchus</i> ...	Ditto.	
<i>Trogon variegatus</i> .		
„ <i>viridis</i> .		
„ <i>atricollis</i> .		
<i>Jacamerops grandis</i> ...	King of the Humming-birds	2
<i>Galbula viridis</i> ...	Ditto ...	2
„ <i>paradisea</i> ...	Ditto ...	2
„ <i>albirostris</i> ...	Ditto.	
„ <i>sp.</i> ...	Ditto.	
<i>Leistes Americanus</i> ...	Redbreast ...	2
<i>Sturnella Ludoviciana</i> ...	Savanna starling ...	2
<i>Donacobius atricapillus</i> ...	... ..	2
„ <i>sp.</i>		
<i>Certhiola flaveola</i> ...	Creeper ...	2
<i>Cœreba cœrulea</i> ...	Ditto ...	2
„ <i>cyanea</i> ...	Ditto.	
<i>Icterus xanthornus</i> ...	Plantain bird ...	2
<i>Chrysomus flavus</i> ...	Oriole, species ...	2
„ <i>icterocephalus</i> ...	Ditto ...	2
<i>Xanthornus chrysocephalus</i> ...	Ditto.	
„ <i>sp.</i> ...	Ditto.	
<i>Scaphidura atra</i> ...	Rice bird ...	2
<i>Cassicus cristatus</i> ...	Bonya. or Troupial ...	2
„ <i>viridis</i> ...	Wallaba bonya.	
„ <i>hœmorrhous</i> ...	Mocking-bird.	
<i>Thamnophilus cristatus</i> ...	Kiskadi, species ...	2
<i>Saurophagus sulphuratus</i> ...	Ditto.	
<i>Tyrannus melancholicus</i> ...	Ditto, species.	

Scaphorhynchus Pitangua	...	Kiskadi.				
Pachyrhynchus Cayanus	...	Ditto.				
Lanius sp.						
Pachyrhynchus sp.						
Tyrannus violentus.						
Micropogon Cayennensis.						
Tanagra serioptera	...	Blue sacki	...	...	...	2
" olivascens	...	Brown ditto	...	...	...	2
" Brasilia	...	Silverbeak	...	...	...	2
Tanagrella Cyanomelas	...	Sacki, species	...	...	...	2
Calliste flaviventris	...	Ditto	...	...	...	2
Euphonia violacea	...	Canary	...	...	...	2
" sp.?	...	Ditto	...	...	...	2
Elaeena pagana	...	Morning Lady.				
Sporophila minuta	...	Grass-bird.				
" sp.	...	Ditto.				
Arremon silens	...					2
Caryothraustes viridis	...					2
Schistochlamis melanopis	...					2
Saltator magnus.						
Cissopis major.						
Name not known	...					3
Myothera Tetema	...	Ant-catcher	...	...	...	2
Myrmomax cinnamomeus	...	Ditto.				
" ardesianus	...	Ditto.				
Pithys albifrons	...	Ditto	...	...	...	2
" pectoralis	...	Ditto.				
Sylvicola sp.						
Conopophaga aurita	...	Antcatcher	...	...	...	2
Rupicola crocea	...	Cock of the rock	...	...	...	2
Pipra aureola	...	Manakin, species	...	...	...	2
" manacus	...	Ditto.				
" Aurocapilla	...	Golden-headed Manakin	...	...	...	2
" sp.	...	Manakin, species.				
Chiroxyphia pareola	...	Ditto.				
Todus cinereus	...	Small Flycatcher, species.				
Panyptila Cayennensis	...	Swallow	ditto	...	...	2
Trochilus Pella	...	Humming-bird	...	...	...	5
Phaetornis superciliosus	...	Ditto	...	...	...	2
Heliothrix aurita	...	Ditto	...	...	...	3
Ornismya albirostris	...	Ditto.				
Campylopterus falcipennis	...	Ditto	...	...	...	2
Florisuga mellivorus	...	Ditto	...	...	...	2
Thaumatus viridissimus	...	Ditto.				
Platurus longicaudus	...	Ditto	...	...	...	2
Prognornis macrurus	...	Ditto.				
Lampornis sp.	...	Ditto.				
Glaucopis furcatus	...	Ditto	...	...	...	3
Trochilus sp.	...	Ditto	...	...	...	5

VI. STUFFED REPTILES.

				Specimens.
Hymaralli snake	...	...	Boa, sp.	
Parrot snake	...	...	Trigonocephalus viridis. ?	2
Labaria	"	...	" atrox. ?	2
Colokunaru	"	...	Boa constrictor. ...	2
Morabanna	"	...	Trigonocephalus rhomboideus.	
Elala	"			
Coral	"			
Snake, sp.				
Crapaud snake.				
Salempenter	...	...	Salvator Teguxin.	
Land Turtle	...	...	Testudo tabulata.	

VII. AND VIII. ANIMALS, FISHES, REPTILES, ETC., IN SPIRITS.

Myrmecophaga didactyla	...	Small ant-eater.	
Dicotyles labiata	...	Abuya.	
Cercoleptes candivolvulus.			
Tapirus Americanus	...	Tapir, or Bush cow.	
Lutra sp.	...	Otter.	
Dasyus novemcinctus	...	Armadillo.	
Hapale rufimana	...	Red-handed Tamarin.	
Sciurus cestuans	...	Squirrel.	
Mus sp.	...	Bush rat.	
Bradypus didactylus	...	Two-toed sloth.	
Didelphys cinerea	...	Yawarry.	
Phyllostoma hastatum	...	Vampire bat.	
" spectrum	...	Ditto.	
" pespicillatum	...	Ditto.	
Noctilio leporinus	...	Common bat.	
Dysopes velox	...	Ditto.	
Pipa Surinamensis	...	Frog, species.	
Hyla sp.	...	Ditto.	6
Bufo sp., in a state of metamorphosis.			
Bufo sp.	...	Toad, species.	
Iguana tuberculata	...	Guana.	
Salvator Teguxin	...	X alempenter.	
Lacerta sp.	...	Lizard, species	4
Platydictylus?	...	Gecko.	
Fishes	...	Various	14
Mollusca, Rhizostoma sp.?			
Testudo tabulata	...	Land turtle.	
Anableps tetraphthalmus, with young ones	...	Fish called "Four eyes."	
Crabs	...	Various species	6
Snakes	...	Ditto	36

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IX. BIRDS' NESTS WITH EGGS, ETC.

Nest and eggs of

Tanagra Serioptera	...	Blue sacki.
" Brasilia	...	Silverbeak.
" olivascens	...	Brown sacki.
Leistes Americanus	...	Redbreast.
Sporophila minuta	...	Grassbird.
" sp.	...	Ditto.
Turdus fumigatus	...	Thrush, species.
Todus cinereus.		
Crotophaga ani	...	Keel-bill.

Nests and eggs of

Saurophagus sulphuratus	...	Kiskadi.
Tyrannus melancholicus	...	Ditto.
Elaenea pagana	...	Morning Lady.
Dacnis cerulea?	...	Creeper.
Rallus crepitans	...	Rail.
Chrysomus icterocephalus...		Ditto.
Fluvicola bicola	...	Cotton-bird.
Trochilus Pella	...	Humming-bird.
" sp.	...	Ditto.
Donacobius atricapillus	...	
Icterus xanthornus	...	Plantain-bird.
Loxia crassirostris	...	Finch, species.
Thamnophilus doliatus	...	
Fringilla, sp.	...	

Nest of Elaenea pagana, found with the eggs of another bird.

" Tyrannus melancholicus	ditto	ditto.
" Progne tapera	...	Swallow.
" Trochilus sp.	...	Humming-bird.

Eggs of Opisthocomus cristatus

" Parra jassana	...	Spurwing.
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" Birds unknown, five varieties

INSECTS, chiefly butterflies, in eight cases.

WASPS' NESTS, six in number.

INSECTS, 1,214 species in eighteen cases, viz. :—

Coleoptera, different species,	325	...	Beetles.
Hymenoptera	ditto	141	... Bees, wasps, ants.
Lepidoptera	ditto	290	.. Butterflies.
Neuroptera	ditto	51	... Pondflies, or dragonflies.
Diptera	ditto	50	... Flies.
Hemiptera	ditto	123	... Cicades and bugs.
Orthoptera	ditto	70	... Locusts, walking leaves.
Aptera	ditto	11	... Centipedes, scorpions.
INSECTS not classified	...	153	

1,214

X. MINERALS.

QUARTZ, rose-coloured, from Barima River.

SPECIMEN OF ROCK, from the high lands of the Upper Barima River, where it abounds.

GRANITE (so labelled), from the hills of the Upper Barima River.

SPECIMEN OF ROCK, from the Upper Wynnee, or Waini, near the falls, on the left bank.

" " from the first cataract of the Barima River.

" " from the Upper Barima.

" " from the Upper Wynnee, near the falls on the right bank.

CLAY, specimen of, procured from a depth of 11 feet, Upper Barima River.

CONGLOMERATE, from near the rapids of Touroubana-cabra.

MINAH, or CLAY, used by the Indians for pottery.

CLAY, from the banks of the Demerara River.

" Kaow Island, Essequibo River.

BLACK SAND, from the Essequibo River.

APPENDIX B.

Report of SIR WILLIAM HOLMES, who represented the Colony of British Guiana at the International Exhibition of 1862, read at the opening of the Exhibition of the Natural History Society at Georgetown, on 1st August, 1863.

LADIES AND GENTLEMEN,—After the word-painting of the London press, and the time which has elapsed, it would be superfluous to attempt any description of the last International Exhibition.

I shall confine myself, therefore, to such observations derived from personal experience, as I think may prove of some practical utility.

To commence, it may be as well for us to understand how little is known in England of our Colony. It is generally classed amongst the West Indian Islands; indeed, it is often quoted as an island. Few are aware of the relative positions of Demerara and Guiana, for it appears that the county is far better known than the province. Our geography, history, or productions, even among the educated classes, are comparatively ignored. Unless intimately connected with the Colony, few had any idea that the area of British Guiana exceeds that of Great Britain; that its climate, though tropical, is salubrious—that it is watered by gigantic rivers whose sources are far away in the untrodden regions of the empire of Brazil, or in the republic of Venezuela—that these rivers and their tributaries form a net-work of internal navigation unparalleled in other countries, and flow through thousands of miles of virgin forests—through territories abounding in tropical productions and through soils of wonderful fertility;—that our flora and fauna are still but partially determined, while our mineral resources have as yet been left unexamined in fact, that but a mere edging of our vast territories is settled or cultivated,—yet this portion in 1861 exported over 70,000 hhds. of sugar, 30,000 puns. rum, and about a million cubic feet of timber, valued in round numbers at £1,500,000. Taking our population at 150,000, this shows an export of £10 per head derived solely from the produce of the soil, more than double that of manufacturing England. In many instances, those to whom I related this state of affairs were rather incredulous, and it was only after investigating the map of South America, and examining our contributions, that they began to realise the value and resources of the Colony. To the ordinary visitor—I fear to some of our colonists—the collection exhibited appeared, with the exception perhaps of the specimens of Natural History, but little

attractive. Samples of sugar, phials of rum, bottles of all sizes containing specimens of flour, starches, oils, pigments, rough barks, fragments of fibre, samples of gutta percha, caoutchouc, and slabs of timber, were hurriedly glanced at, by the generality of visitors.

But in England, where trade is subdivided into systems of "specialities," almost every article became the object of minute investigation. Thus in turn the merchant, manufacturer, chemist, artist, and, though last not least, the amateur, were eager inquirers as to the price, quantity, or quality, and when and on what terms such an article could be delivered.

It was at this point I was obliged to admit that although every article could be produced or obtained in large quantities, that labour was scarce, and fully occupied in cultivating the recognised staple, that parts of our land were difficult of approach, and that consequently it would not be very easy to obtain many articles in such quantities as were desired.

The specimens we exhibited were necessarily small, and the universal cry was for larger samples; "about a hundred weight" was required to adapt machinery and to enable a thorough investigation to be carried out. We are all here aware how difficult it would be to supply such an amount of many of the things which we exhibited, and it is at this stage that Government or some other extraneous aid becomes necessary, if we are desirous of introducing new materials into our general commerce.

I shall now proceed to notice the awards of the Juries. British Guiana received thirty-eight medals and nineteen honourable mentions—in all, fifty-seven prizes. In this respect we were the fourth on the list of British Colonies—a position of which I think we may be justly proud, when we take into consideration the wealth and population of Canada and of the Australian Colonies, and the great preparations and outlay which they made to be adequately represented. For instance, the timber trophy of one of the minor of these Colonies cost more than the whole expenses of our department in England. In reviewing the awards of the Juries, I shall, for convenience of reference, adhere to the divisions or sections of the Local Catalogue.

SECTION A.

SACCHARINE PRODUCTS AND ARTICLES OF FOOD.

Under this section we received nineteen medals and eight honourable mentions. Six medals were awarded to our principal staple, sugar. The vacuum pan descriptions were considered as good in colour and quality as it was possible to make under this particular process. There was a specimen from the Mauritius, the grain of which was as large as the ordinary crystals of sugar-candy; it received a medal, but it was more a fancy article than one required for general purposes. Ordinary muscovado from Cuming's Lodge estate was awarded a medal, and compared not unfavourably with the best qualities of Barbadoes sugar in its immediate vicinity.

Rum.—Five medals and five honourable mentions were awarded to this article; our qualities ranked next to those from Jamaica, which always command the highest prices; indeed, rum seems a sort of “speciality” of that island; the distilleries there are not on so large a scale as ours; the superiority of the spirit seems, in a great measure, due to the care in its preparation and to an abundant supply of running water.

BOUGHTON’S Curaçoa, composed of pure spirit, sugar, and fruits, obtained a medal; it was remarkable for its fragrance, and was considered by the Jury about the most successful liqueur exhibited, a verdict practically borne out by public opinion, for all the samples so rapidly disappeared that it was found advisable to substitute “dummy” bottles for the veritable compound.

The series of flours, farinas, meals, and starches exhibited, received five medals—four of which were awarded to our farmers. It is remarkable how little appreciated these articles are in a Colony that annually imports 70,000 to 80,000 barrels of flour; yet in England, plantain meal and flours of the sweet and bitter cassava were found to make excellent bread and pastry—as food for children and the invalid they cannot be surpassed—and after six months’ exposure in the Exhibition buildings their qualities were found unimpaired. To such an extent could flours and meals from the “roots and fruits” of Guiana be produced, that in the event of the cereals being overtaken by such diseases as have stricken the vine and potato, it is not perhaps too much to say that nature has provided in this part of the world the means of mitigating so fearful a dearth.

Rice.—Although no medal was awarded, our specimens were highly commended; and it may not be out of place here to state, that rice from Guiana on a former occasion, on its first appearance in the London market, commanded higher prices than the best Carolina.

This Colony is now dependent on a single staple, and that recognised as one of the most fluctuating—yet there is not, perhaps, in the world a country so adapted for the cultivation of rice as British Guiana, seeing that with a tropical climate it consists of flat alluvial soil of great fertility, with an unlimited supply of fresh water for irrigation. Considering that this grain forms the principal food of certainly one-half of the population of the globe, and that we, at great cost, annually import sixty to seventy thousand bags, the importance of this cereal to us cannot be over-estimated. I believe by well-regulated action there is ample labour to be had, which applied to its cultivation would relieve us of the drain occasioned by its purchase abroad.

Cassareep is well known to be the chief ingredient of many of the best sauces, and five to six shillings a bottle is the usual price in London for this condiment. It may not be uninteresting to mention that “pepperpot” was considered about the most successful dish at the great acclimatisation dinner, where luxuries from all parts of the world were introduced.

Judging from the desire in England to obtain good Cayenne

pepper, preserves, capsicums, hot pickles, and succades, especially guava jelly, the specimens of which were much approved, I should think some suitable occupation might be found for a class of persons, who, incapable of field-work, appear to be in a chronic state of want in this Colony, namely, unemployed females; seeing that fruit and other ingredients are to be had almost for the gathering, and that sugar is as cheap as in any other part of the world, while our export list shows but a very limited number of small packages of such articles, I would call public attention to a resource only requiring some care and attention to secure a livelihood for a number of persons.

SECTION B.

FIBROUS SUBSTANCES

Received six medals and four honourable mentions, the majority of these were awarded to cotton. This Colony is so renowned for the produce of this staple, that although for many years we have ceased to export a single bale, "Demerara cotton" remains stereotyped in the Liverpool Prices Current, and occupies a place next to Sea Island. The samples exhibited quite kept up our former repute, and afforded a variety of qualities from the silky green seed to the coarse qualities of inland obtained from the Macusi Indians. These much resembled what in the trade are called "Bowed Georgias," and are in great demand for general purposes. It is unnecessary to make further remarks about cotton. It is generally known here that we have an unlimited amount of most suitable land for the growth of this plant; in fact, if we had hands, British Guiana alone could supply the demands of the English market. Eleven other fibres were exhibited, every one of which was considered valuable, averaging from £20 to £40 a ton. It is most unfortunate that we have not hitherto been able to utilise the fibre of the plantain, whose fruit may be said to be the staple food of the Colony. Thousands of tons of this material are annually allowed to rot on the ground, and yet a very complete and not expensive machine was exhibited, with which the writer with his own hands readily obtained from a banana-tree, kindly contributed for the experiment by Sir W. Hooker, from the Royal Gardens at Kew, fibre valued at £40 a ton. Mr. Manifold, Civil Engineer, has all the details of this machine, and is in a position to order it from the patentee. The cost is something under £50.

SECTION C.

TO CHEMICAL AND PHARMACEUTICAL ARTICLES

Five medals and five honourable mentions were awarded. For a Colony possessing such extensive territories, consisting, as they do, for the greater part of unexplored tropical forest, this section opens out so vast a field, that it would be impossible in a paper of this sort even to attempt to enumerate the various drugs, resins, gums, dyes, oils,

and waxes that could be obtained from this almost inexhaustible source; suffice it to say, that Mr. Charles Hunter, Surgeon to the Royal Dispensary, Pimlico, under the auspices of that most estimable lady, Miss Burdett Coutts (to whose interest in this Colony, as shown by this and other generous acts, I may here pay a passing tribute), undertook to examine the Medical and Pharmaceutical contributions, which he describes "as allowed to repose unlooked at, save by a few in the retired corners of the various Courts, if not carefully sought for—not in Catalogues, as they were seldom mentioned in them—but in the recesses of the Courts." His investigations were chiefly confined to a series of 140 barks contributed by the authorities of British Guiana, but collected by Mr. M'Clintock in the Pomeroon and neighbouring rivers, and said to be in use amongst Indian tribes who inhabit their banks. The result is an interesting pamphlet, which the Committee consider of such value that they have dispatched the Colonial Botanist, Mr. Appun, to obtain larger supplies for further examination. In proof of the utility of the International Exhibition, if such be necessary, I may be allowed to say, it determined the value of that new material, which, I trust, may ere long be numbered amongst the exports of the Colony; I allude to ballata, or juice of the bullet-tree. This article combining the qualities of caoutchouc and gutta-percha, may possibly be found to supply the great want of the day as a satisfactory insulator, for which purpose there are objections both to india-rubber and gutta-percha—at any rate, it is valued at one shilling to one shilling and sixpence per pound; and, at this moment, some fifty Indians, who would otherwise be useless to the Colony, are obtaining liberal wages to collect it.

SECTION D.

OF WOODS FOR BUILDING AND OTHER PURPOSES.

We exhibited about 130 different varieties, but as they were shown in collections, only two medals and one honourable mention were awarded. No material is so difficult to bring into general use as new varieties of timber, seeing that the stability and durability of the constructions for which it is used are dependent on the quality employed. Architects therefore naturally hesitate to use untried sorts, while an adequate supply of well-known timber is to be had. *Teak* from India commands the market. While possessing most of the qualities of our hardwood, it is lighter and more easily worked, and contains an essential oil which rather preserves than deteriorates iron. Greenheart is certainly next in rank. In 1861 about a million cubic feet were shipped to the English market; this large supply, combined with other causes, tended to bring down prices, but at the same time introduced it into many new undertakings, so that stocks did not accumulate, and I have no doubt laid the foundation for a continuous demand. Some interesting trials of greenheart were made by the London and North-Western Company for railway purposes; the reports of these were so satisfactory that having been kindly furnished with copies by

Mr. Tinne of Liverpool, I addressed circulars to most of the railway companies in Great Britain, I trust with some success, as I have learned since my return that some large contracts have been taken up by them. Mora and greenheart are admitted at Lloyd's, among the seven or eight woods from all parts of the world recognised as first-class, and they are allowed by that Association to be used in the construction of ships of the "best letter."—Mora is little shipped, from local causes. No doubt many woods exhibited were of as good a quality as either greenheart or mora, but it takes many years to establish new descriptions in the English markets, and, unfortunately, local reputation is of little avail. As collections, our woods were much admired, especially those varieties that appeared suitable for furniture; but among cabinet-makers, as among the more important branches of the business, there are recognised woods—such as mahogany, rosewood and walnut, to which they and their customers are accustomed, and which they will not leave, except especially ordered to do so. Mr. Andrew Hunter exhibited a piece of letter-wood which obtained a prize: it was supposed to be the most beautiful specimen at the Exhibition. Captain Fowke, of the Royal Engineers, having undertaken to make a series of experiments on woods from all parts of the world, I furnished him with specimens of most of ours, the results of which when completed will be laid before Parliament, and will be distributed, in the shape of a Blue Book, to the public and to the various countries and Colonies whose woods have been contributed. Before leaving England, I ascertained that greenheart retained its place high on the list of the most valuable timbers known.

SECTION E.

INDIAN MANUFACTURES AND MISCELLANEOUS ARTICLES.

The specimens exhibited under this section were more intended for decoration and as curiosities to illustrate the habits and peculiarities of an interesting, gentle, but waning race, than to compete with the choice fabrics of the civilised world. In their way they attracted considerable attention, and the basket-work from Pomeroun deservedly gained a medal. It is a curious coincidence that the designs of the pegalls are nearly fac-similes of the patterns as seen on Etruscan tombs and pottery, perhaps the earliest specimens of European art. The *matapi* or cassava squeezer has a description of power, apparently unknown in England; its ingenuity excited some surprise, and several mechanics took a note of these instruments for practical purposes.

SECTION F.

NATURAL HISTORY—SEEDS AND IMITATIONS OF FRUITS.

This section in the Exhibition Catalogue came under Class 29, "Educational Works and Appliances;" although specimens of natural history may scarcely be considered legitimate in an industrial and fine art Exhibition, our department would have been deprived of its

most attractive characteristics had it not been for the munificent contribution of Mr. Alpin Grant and the collection of butterflies, reptiles, and insects of Dr. Whitlock, Messrs. Erhardt and Appun. These were by far the most popular with the multitude; and rich as our collection was in utilitarian articles, our department would often have been left unobserved had it not been for the "Kaleidoscopic" colours of our birds and butterflies: nor are these to be despised in a commercial point of view, as naturalists were very desirous to contract for supplies of birds of brilliant plumage, for the fashion of the day had adopted them as suitable ornaments for ladies and children's hats; "emperor" butterflies were also in great demand for the evening head-dresses of our fair countrywomen. For these insects, and for good skins of the scarlet ibis (*currie-currie*), five to seven shillings each were freely offered. The Natural History contributions of Mr. Grant, Dr. Whitlock, and Messrs. Erhardt and Appun were rewarded by medals. Mr. Mattis, of Surinam, also received a similar prize for his very clever imitation, in a new material, of tropical fruits and vegetables.

It will be observed that as our country is principally remarkable for natural productions, only a very few rewards were given for "excellence of workmanship;" amongst these must be reckoned basket-work by the Indians, and a table made by Mr. Delph. Considering that the furniture class at the International Exhibition was perhaps more replete than any other, it is no small credit to Mr. Delph that, in competition with the first manufacturers, he should have obtained an "honourable mention" for the specimen he exhibited.

Having thus very cursorily glanced at the various articles exhibited by British Guiana in the order laid down in the "Local Catalogue," it will no doubt be interesting to learn the manner in which the collection was disposed of. In the first instance, Sir William Hooker (than whom the Colony does not possess a warmer or more enlightened advocate) put in a claim backed by a despatch from His Grace the Minister for the Colonies, and it was matter of sincere gratification to me to receive orders from the Committee of Correspondence to accede to Sir William's request. I consequently delivered to the Royal Gardens at Kew a complete series of all our most interesting and valuable productions. A letter from Sir W. Hooker, which will be published with this report, describes the noble building which is to be allotted for their reception, and those who have had the opportunity of seeing the way in which every department is conducted at Kew will be able to testify that no more useful or satisfactory disposition could have been made of the bulk of the collection. But as the authorities at Kew already possessed some, and as we had duplicates of many of the articles exhibited, I was enabled to accede to the request of Dr. Archer, the Superintendent of the Industrial Museum of Scotland, and of Mr. Cole, the General Superintendent of the South Kensington Museum, to supply them with collections of the products of British Guiana, and it was agreed that the source whence the specimens were obtained should be

distinctly explained, and that any desirable information arrived at with regard to them should be communicated to the Royal Agricultural and Commercial Society of British Guiana.

With regard to finances, I am happy to be able to report, that after returning to the Colony the Natural History collection, the arrangement of which cost by far the largest item in our expenditure, and after the most liberal disposition of the remainder of the contribution, the expenses incurred have not exceeded the grants made by the liberality of the Local Legislature; and had it been deemed necessary to have sold off everything, I believe our share in the International Exhibition need only have cost the Colony a very trifling sum.

Previous to the commencement of the Exhibition I had had constructed, by a skilful workman, a jewel cabinet of our furniture woods, to display to the best advantage their beauty and variety. This specimen was much admired by the public, and it was with pleasure I received instructions from the Committee to offer it to His Royal Highness the Prince of Wales on behalf of the Colony.

Attached to this report are copies of letters from the Duke of Newcastle, acknowledging a presentation copy of the Local Catalogue which I was directed to place at His Grace's disposal; from Sir William Hooker, conveying his thanks for the contribution to the Royal Gardens at Kew; from Mr. Cole, on behalf of the Kensington Museum; from Dr. Archer, of the Industrial Museum of Scotland; from Dr. Lindley, Superintendent of the Colonial Department at the International Exhibition, acknowledging receipt of a letter of thanks from the Corresponding Committee; and from Lieutenant-General Knollys, conveying the thanks of His Royal Highness the Prince of Wales for the Cabinet.

I cannot conclude this report without alluding to the "Catalogue raisonnée" prepared by a Sub-Committee of the Committee of Correspondence. The very flattering letter of Sir William Hooker on this subject has already appeared in the local press, and it is no small tribute to the advanced intelligence of this community that our Catalogue was recognised as one of the most valuable works of reference at the International Exhibition; several copies were ordered by the authorities at Downing-street for transmission to different Colonies. Successful as we were at the Exhibition, it was unfortunate that unavoidable circumstances precluded the receipt of the Catalogue in London before the "decisions of the Juries" had been arrived at. The Juries had to be dependent on the amount of information to be obtained from me, often insufficient on many subjects, and then to rely on the hurried memoranda of the moment, whereas with the Catalogue in their hands they would have been in a position to have given due consideration to many articles that were overlooked.

I very much fear that the interest I feel on this subject has allowed me to trespass too far on your patience and kindness; but the importance of many objects I have found myself obliged to touch on must be my excuse, and I am convinced it will be a satisfaction

to those, to whom this Colony is likely to be the permanent home, and hereafter the residence of their children, to know, that the country which they inhabit has received the stamp of a great country, abounding in natural resources of which neither accidents or misfortunes can deprive it. It requires no very prophetic eye to foresee in Georgetown a great tropical emporium, or harbours filled with shipping, and our magnificent rivers like those of the Northern Continent ploughed by innumerable steamers. Indeed, seeing what we have accomplished with a very limited immigration, had it been possible in the quarter of a century which has this very day elapsed since Emancipation, to have added to the free population of this country at the same ratio that slave labour has been poured into the Spanish Colonies, there is little doubt that Georgetown would ere this have rivalled Havannah, and that free Guiana would have been a greater exporter of produce than slaveholding Cuba. At any rate, if we are but true to ourselves, and succeed in attracting labour to our fertile shores, there is no cause for despondency.

APPENDIX C.

4, Southwick Place, Hyde Park Square,
London, January 8th, 1862.

SIR,

I have to beg you will be good enough to bring to the notice of your Directors the annexed memorandum of experiments made on West Indian timbers at the London and North-Western Railway Company's works at Crewe.

By these experiments it will be seen that 18 cubic feet of greenheart are required for a wagon—at 77 lbs. per cubic foot, its weight would be under $12\frac{1}{2}$ cwt. Its cost at 4s. per cubic foot (the present price of greenheart), £3 12s.

Twenty-eight cubic feet of oak are required for the same purpose—this timber is estimated to weigh (best quality) about 60 lbs. per cubic foot, consequently a wagon made of oak would weigh 15 cwt., which at 3s. 6d. per cubic foot, gives £4 18s. as the cost of the material of a wagon.

If these data are correct, it is evident that greenheart is a better wood for the construction of wagons than oak, as there is a large saving *in tare*, and a still larger saving *in cost*. All I, however, would urge on your Directors is to try the experiment, which now can be easily accomplished, as there is a considerable stock of greenheart in London in the hands of Messrs. C. W. and W. Gray, Great St. Helen's; Messrs. Luckie, Brothers and Co., Fenchurch Street; and Mr. Edward Luckie, 4, Laurence Pountney Place.

My sole object in urging this matter on your notice is to endeavour to bring into general use a most valuable timber, of which there is an unlimited supply in British Guiana, and which is already well known to ship-builders, being recognised at Lloyd's as one of the eight or nine first-class woods of the world.

There is a sort of wood in Guiana called "Tacooba," which in the Colony, for sleepers, is considered almost indestructible; they could be delivered in London at about 6s. each (per sleeper). I should be glad to learn if any such material is required for your railway.

I have the honour to be, Sir,

Your obedient servant,

W. W. HOLMES,

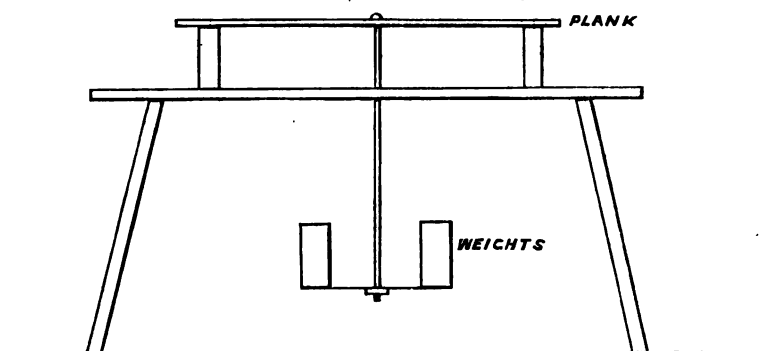
Special Commissioner from British Guiana
to the International Exhibition of 1862.

GREENHEART TIMBER FROM BRITISH GUIANA.

*Tests of Transverse Strength of the following kinds of Timber
12 inch wide 1 inch square.*

Description.	Broke at a pressure of	Cubic Feet required for a Wagon.	Weight.	Weight of a Cubic Foot.
			Cwts. qrs. lbs.	
Greenheart	1338 lbs.	13 ft. 6 in.	9 1 24	77·62
Mora	966 "	18 " 8 "	12 2 0	74·52
Bully Tree.. ..	589 "	30 " 9 "	21 2 5	78·12
English Oak...	760 "	24 " 0 "	15 0 13	70·58

MODE OF TESTING FRAME.



NATHANIEL WORSDALE.

London and North-Western Railway
Company's Works, Crewe.

London and North-Western Railway.

Extract from Mr. Owen's Report, dated 11th November, 1861.

"Minute No. 189. 18th July, 1861. On West Indian timber.

"I beg to report, for the information of the Committee, that I have made this timber the subject of special consideration. I have had the greenheart and mora converted into scantling in proportion to its bearing qualities as compared with those of English oak, and the following statement shows the relative proportions :—

FRAMEWORK FOR ONE WAGON.

Description.	Quantity required for one wagon.	Price per Cubic foot.	Cost per wagon. £. s. d.	Weight of Timber. Cwts. qrs. lbs.
Greenheart	17½ c. feet.	*6/2	5 9 5½	12 0 6
Mora	22 "	6/3	6 17 6	15 0 0
English Oak	28 "	4/	5 12 0	13 1 0

* N.B.—The present, and usual price of greenheart timber, is from 4s. to 4s. 6d. per cubic foot.

"From the foregoing tabular statement it will be seen that there is no material difference in the cost per wagon between the greenheart and the oak (the greenheart being the only timber which really can be brought to compare with oak). Its bearing qualities, however, are much superior to oak of equal dimensions; but when reduced in size, so as to bear an equal weight, and in order not to increase the tare of the wagon, I very much question if it would stand the concussions that wagons are generally subjected to; but this is of course only conjecture, as we cannot test it in this respect. It will require some time to determine this."

London, December 15th, 1861.

APPENDIX D.

LAND REGULATIONS, &c.

AUSTRALIAN COLONIES.

VICTORIA.—The land law of Victoria is—subject to probable future modifications—in its chief provisions, as follows :—

The Land Act of 1862 repeals all former laws and regulations under which the public territory of Victoria has hitherto been sold, granted, leased, or licensed.

The main object of the new law is, to give “increased facilities for the settlement of the people.” *All the prime arable land*, instead of being sold in large estates, will be reserved, in the first instance, for actual settlers, who undertake to cultivate or improve their farms. The unsold lands, entitled to be admitted into this class, do not exceed ten millions of acres. These lands have been delineated on a large map, which is deposited in the Parliament house ; and it is forbidden to sell them hereafter, except in (what has been named) *agricultural areas*.

An agricultural area is a district of arable land, consisting of from 20,000 to 30,000 acres, surveyed into convenient farms. One hundred and fifty SUCH AREAS will be open for selection. They are situated near the gold-fields, the railways, the chief towns, the sea-ports, and other centres of population, and amount in all to four millions of acres. This quantity will be kept up by fresh surveys from year to year.

A map, exhibiting the general position of these 150 areas, is sold for a penny, at every land-office, custom-house, and post-office, in Victoria. A large and more elaborate map, printed in colours (price 7s. 6d.), on which the land sold, the land proclaimed open in the four millions, and the land reserved for future proclamations, are separately shown, may be purchased at the same places.

When an area is proclaimed open, a plan of it is published at a nominal price, showing the size and position of the various farms. The size varies from 40 to 640 acres, which are the limits both ways. An intending settler, having gone on the ground, and made his selection, may send in his application to the land officer (in a printed form, which will be supplied to him at the land-office), for any allotment or allotments he chooses, not exceeding 640 acres. The application must be accompanied by a declaration (the form of which will also be supplied at the land-office), that he is over twenty-one years of age, that he is resident in Victoria, that he selects the land for his own use, and not as agent for any other person. If the intending settler be a woman, she must declare that she is not a married woman, or, if a married woman, that she is judicially separated according to the laws of Victoria.

Every selector must appear personally before the land officer. The system of acting through agents has been entirely abolished.

If there be no competitor for the same farm, the applicant will be declared the selector, and put into immediate possession. If there be one or more competitors, who have applied for the same farm between the hours of nine and four o'clock *on the same day*, they will draw lots, in the presence of the land officer, in a manner prescribed by regulations, and devised to secure fair play.

The selector must, in the first instance, pay to the land officer the purchase-money, or the purchase-money and rent of his allotments. He can either pay for his farm at £1 an acre, and receive the title forthwith—and *in no case can the price be higher than £1 an acre*—or he may pay for one-half of it, and rent the second half for eight years at a half-a-crown an acre (or a little over a halfpenny a week); but the rent will be computed as annual instalments of the purchase money, so that at the end of eight years the land will become his property without any payment for the second half of his farm beyond the annual rent of 2s. 6d. an acre. Thus he will secure his land without delay or uncertainty; and the immigrant, before taking ship in Europe, can ascertain beyond doubt the exact price of such a farm as he desires to obtain.

It has been computed that the credit granted for half the purchase money over eight years practically reduces the price of the land to 16s. an acre; and as one year's wages of the most unskilled labourer, at the lowest rate which has prevailed since the discovery of gold, is sufficient to pay the purchase-money and the first year's rent of a farm of eighty acres, it will be seen that a homestead is rendered accessible to every resident in Victoria.

When one-eighth of an agricultural area (or less than 4,000 acres in most cases) is selected, the Governor is empowered to grant double the quantity of land as *commons*, for the selectors resident in the area. When one-quarter (or about 7,000 acres) is selected, the remainder of the area (or three times the quantity selected) will be thrown open. This *commonage* will be under the control of the residents, for the exclusive use of their cattle and sheep; and the commonage fees must be expended on local improvements. It has long been contended that farming, to be prosperous on the scale of other pursuits in a gold country, requires abundant grazing rights near to the farm, and such profitable auxiliary employment as the rearing of sheep or swine. The settlers in an agricultural area will have the advantage of feeding their stock at their own doors, on terms to be regulated by managers elected by themselves; and this privilege, wisely used, means the production of meat, milk, butter, and cheese, for the farm, at a nominal cost.

The purchase-money and rent of the land will go into the public Treasury, but the bulk of it will return to the district in profitable expenditure. After defraying the cost of survey, one-quarter of the Land Fund, from all sources, will be expended in paying the passages of immigrants, to supply the labour market, from which the facility of obtaining land will operate as a constant drain. The new settlers,

in common with the rest of the community, can, on payment of a small sum in the colony, nominate their relatives or skilled labourers at home, and the State will pay the bulk of the passage-money of the persons nominated.* For the first nine months of every year, the *assisted immigrants* must be selected from England, Ireland, and Scotland, in proportion to the population of these countries. For the other three months the fund is open to be distributed, under regulations voted annually by Parliament.

Two-fourths more of the Land Fund will be expended on highways and on local roads and bridges, in order to render markets accessible to the new centres of agricultural industry.

The restriction of the size of farms to 640 acres applies only to land in agricultural areas (that is, to land of the first quality, of which there is a limited supply), and even in these areas the settler may add 640 acres to his property every year; and after three years the Government are empowered, but *not* compelled, to sell the unselected land by auction, in such larger quantities as they may deem fit. They may also sell by auction, from time to time, the land of any selector who fails to pay his annual rent.

Every settler in an agricultural area is bound within twelve months to cultivate one acre in ten of his allotment, enclose it with a substantial fence, or erect a habitable dwelling; failing which, he is liable to a penalty of 5s. an acre. Personal residence is not rendered compulsory.

A section (one square mile) of each area will be reserved for public purposes, in order that churches, schools, savings' banks, mechanics' institutes, courts, post-offices, public gardens, baths, and markets, may, in good time, follow the settler.

It is provided that when any person desires to make a vineyard or oliveyard, or mulberry or hop plantation, or to establish permanently any useful plant, or industrial enterprise, or process, which was not previously generally known and used in Victoria, if he make application (in a prescribed form) for any Crown lands required for such purpose, *a lease of the lands sought, not exceeding thirty acres, may be granted for any term not exceeding thirty years.* The rent is to be such sum as may be deemed reasonable by the Governor in each case; and if the conditions of the lease be complied with (the main condition being the successful establishment of the industry in question), the lessee will have the right to *purchase the fee-simple any time after five years at £1 per acre.* If, however, the conditions be not complied with, the lease will be voidable. These leases may be

* The following are the regulations:—The passage of an adult costs the colony about £14; of which it pays the balance over the sum required to be contributed by the colonists who wish to nominate emigrants.

The following sums shall be payable in advance, with respect to persons nominated in Victoria, who shall be British subjects, free from any mental or bodily defect, and of good character:—

Sex.	Under 12.	12 and under 40.	40 and upwards.
Male	£4.	£8.	£9
Female	£3.	£4.	£5

granted on any portion of the public estate, and will, in fact, be granted wherever the situation is peculiarly adapted for the intended industry. But no occupation of lands of an exceptional value, or calculated unnecessarily to interrupt other industries, where land equally fit is to be found elsewhere, will be permitted. The notice of applications, specifying in each case the particular land sought, must be published in the *Government Gazette* for four weeks before the lease is granted; the conditions must afterwards be laid before Parliament; and not more than 100 such leases can be issued in one year. The class of industrial enterprises contemplated embraces not only hops and similar aromatic plants, olives, and vines, but hemp, flax, and tobacco fields, cider orchards, brandy farms, sugar and rice fields, and tea plantations.

Where there are competitors for a lease of this class, the person who first introduces into Victoria, for commercial purposes, "the plant, enterprise, or process," in respect to which a lease is sought, will be entitled to a preference, provided such introduction takes place within six months of his application, and is proved to the satisfaction of the Board of Lands and Works.

A lease of any area not exceeding 640 acres may be granted for a period of thirty years for the purpose of mining for any metal or mineral except gold, and such lease may be framed to confer rights either on or below (or both on and below) the surface. Leases to mine for coal, lignite, and kaolin have been granted under the late law, and Parliament has voted a sum of £1,000, in addition to former votes, in aid of local enterprise to "prospect" coal-fields known to exist in the Geelong, Portland, and South Gipps land districts. The conditions of mining leases are regulated by an Order in Council, which secures to the miner fair advantages, and, above all, that freedom from encroachment indispensable to success. The annual rent of mineral lands is fixed at 2s. an acre, and 2 per cent. on the value of the mineral or metal at the mouth of the mine, and power is reserved to the lessee to work more than one mineral or metal on certain reasonable conditions. When there is more than one applicant for the same land, the first discoverer of the mineral or metal (as in the case of the first introducer of the plant or process) has a right to a lease of this class; or, if there be no discoverer, the first applicant. Leases of three acres, for a term not exceeding seven years, may also be granted for various useful purposes. The rent must not be less than £5, and is ordinarily £10; but in certain cases, such as sites for inns and stores, abattoirs and salt manufactories, it amounts to £25; and for punts and patent slips, varies with the circumstances of the case.

All these leases are voidable at any time if the lessee fails to use the land for the purposes for which it is granted.

All the existing commons are preserved, with the right to increase, diminish, alter, or abolish them, according to public necessity. When any Crown land remains unsold in or within five miles of any municipal district, gold-field, town, or agricultural area of which at least one-fourth part has been selected, the Governor may proclaim such

land to be a municipal common, or a gold-fields' common, or a town common, or a farmer's common, as the case may be. The persons entitled to commonage are the householders of any municipal district, all owners of miners' rights or business licences, all householders of any town, and all selectors in an agricultural area, or their heirs or assigns, who are resident on the land selected, and the landowners resident within five miles of a farmer's common.

The commons, in each case, are to be governed by three managers, who shall have the power of making rules to determine the number of cattle which each person may depasture, and the fees to be paid; and of appointing and paying herdsmen; and these managers shall enjoy the authority of Crown Lands Commissioners, enabling them to impound intruding cattle. The fees, after paying necessary expenses, are to be spent on local objects for the benefit of the district.

With a view to the comfort and health of the gold-fields, there is a provision authorising the issue of dairymen's licences to those persons who supply them with milk and butter; and another provision, with a kindred object, authorising the issue of licences to butchers to depasture cattle intended for slaughter on town or gold-fields' commons.

On farmers' commons authority is given to permit the depasturing of sheep; and the managers may set aside, if they think proper, a special portion of the commons for this purpose. Intrusion is strictly prohibited. Any person infringing the rules or regulations of a common, or unnecessarily disturbing the cattle, is liable to a penalty not exceeding £5 for the first offence, and not exceeding £20 for subsequent offences.

The country occupied for grazing purposes by the Crown tenants, ordinarily called squatters, amounted in 1862 to thirty-five and a-half millions of acres. The present law selects ten and a-half of these thirty-five and a-half millions as land to be reserved for agricultural settlement.

Out of the ten millions of acres more than four millions will be proclaimed open for selection immediately, leaving thirty-one and a-half millions in pastoral occupation to be gradually reduced by further surveys and proclamations (out of the balance of the ten millions) as public necessity requires them. But the grazing land is not itself withdrawn from the control of the State for the purpose of sale and settlement, or of mining, or of any of the licences for industrial enterprises. These licences, on the contrary, will issue exclusively upon grazing land; prospecting upon it for mining purposes is effectually secured; and if there be any public necessity to justify the sale of any portion of it, the Government are debarred from selling it by no impediment whatever. Up to 1860, land for agricultural settlement, or for any other purpose, could only be sold by public auction; and any portion of these twenty-five millions of acres can still be sold by auction. Moreover, sales of it *must be made* at least once a quarter; and whatever land remains unsold can be taken up by the first applicant. The existing "runs" shall continue to be let for grazing on a yearly licence, which shall issue uninterruptedly (unless other-

wise provided) for eight years from the 1st of January, 1863. The assessment on the stock actually fed is abolished, and each run will be assessed on the number of stock *it is capable of carrying*. All the runs will be valued anew, and each be subjected to a rent estimated at the rate of 8d. for every sheep and 2s. for every head of cattle it is capable of carrying.

Thirteen millions of acres in the colony are unstocked or unoccupied waste lands. Seven millions of unstocked country were let on licence in 1860 and 1861. The remainder has never been let; but under the new law may be put up to auction in runs capable of carrying all the year round not more than 5,000 sheep, or 1,250 head of cattle. The Board shall value these new runs, and fix the rent accordingly, and then submit them to public auction: the person who bids the highest *premium*, in addition to the rent, being entitled to the licence. The licence may continue for any period not exceeding fourteen years, and the tenant is protected against losing his run by sale, not more than one-fourth of it being liable to be sold during the currency of the licence. He is also secured the right of purchasing 320 acres, containing his improvements, at the rate of £1 an acre; or if this privilege be not conceded to him (in case of the land proving auriferous, for example), he shall be entitled to compensation for his buildings, yards, and similar improvements, which must not, however, in any case exceed £500.

NEW SOUTH WALES.—The Land Law of New South Wales, passed in 1861, provides: That all Crown lands, provided they are not within a certain distance (from five to ten miles) from a town, or actually within an established gold-field, shall be open for conditional sale by selection. Any person may tender to the land agent for the district a written application for the conditional purchase of not less than forty acres nor more than 320 acres at 20s. per acre, and may pay to such land agent a deposit of one-fourth of the purchase-money. If no other application and deposit for the same land be tendered at the same time, such person shall be the conditional purchaser. If more than one application and deposit for the same land shall be tendered at the same time, the agent shall determine by lot which of the applicants shall become the purchaser.

Crown lands within proclaimed gold-fields and not within areas excluded by special proclamation, and not occupied for gold mining purposes, shall be opened for conditional sale. But persons authorised by the Minister shall be at liberty to dig and search for gold within the lands selected; and should the land be found to contain gold, the Governor and Executive Council may annul the sale, and the purchaser shall be entitled to compensation for the appraised value of the lands and improvements.

If at the time of purchase of any Crown land, such land has not been surveyed by the Government, temporary boundaries shall be determined by the purchaser, who shall, within one month after the purchase, occupy the land. If the land is not surveyed by Government within twelve months from the date of application, the pur-

chaser may give notice in writing to the land agent to withdraw his application, and he is entitled to recover any deposit paid by him, or the purchaser has the option of having the land surveyed by a licensed surveyor, and the expense of such survey shall be allowed to such purchaser as part payment of his purchase-money.

At the expiration of three years from the date of conditional purchase the balance of the purchase-money shall be tendered at the office of the colonial treasurer, together with a declaration by the purchaser that improvements have been made upon the land, specifying the nature, extent, and value of such improvements, and that such land has been from the date of occupation the *bonâ fide* residence either continuously of the original purchaser, or of some alienee, or successive alienees of his whole estate and interest therein, and that no such alienation has been made by any holder thereof until after the *bonâ fide* residence thereon of such holder for one whole year at the least. And upon the Minister being satisfied by such declaration and the certificate of the land agent, the Colonial Treasurer shall receive the remaining purchase-money and grant the fee-simple, with reservation of any minerals which the land may contain.

Crown lands conditionally purchased, and proved to have been abandoned by the purchaser or his legal alienee before the expiration of three years from the date of purchase, shall be declared forfeited by notice in the *Government Gazette*, and may then be sold at auction. Conditional purchasers of Crown lands not exceeding 280 acres, or their legal alienees, may make additional selection of lands adjoining to the first selection or to each other, but not otherwise, and not exceeding in the whole 320 acres, and subject to all the conditions applicable to the original purchase except residence.

Holders in fee-simple of lands granted by the Crown in areas not exceeding 280 acres, who reside on such lands, may make conditional purchases adjoining such lands, the areas of which shall not, with that of the lands held in fee-simple, exceed 320 acres, and which shall not be subject to the condition of residence applicable to conditional purchases in other cases. Crown lands intended to be sold without conditions for residence and improvement shall be put up for public auction in lots not exceeding 320 acres. The upset prices per acre shall not be lower than for town lands, £8; suburban lands, £2; other lands, £1; but they may be fixed at higher amounts. Town lands and suburban lands without improvements shall be sold by public auction only.

The above extracts show that the land law of New South Wales establishes two distinct systems of sales: one at a fixed price, in limited quantities and with conditions; the other, to the highest bidder at auction, in unlimited quantities, and without conditions. The first of these is popularly designated in the Colony FREE SELECTION BEFORE SURVEY; and much importance has been attached to it by the great bulk of the inhabitants. The free selection system is designed to meet the wants of industrious men of small means who desire to settle as cultivators of the soil. This class of persons in the colonies have generally felt the auction system to be disappointing and

vexatious in its operation. By free selection the land can be secured in *fee-simple* by the intending cultivator in quantities of not less than 40, nor more than 320 acres, at the fixed price of 20s. per acre, no matter how rich in quality and favourably situated the land may be; and he is only required to pay one-fourth of the price in cash at the time of purchase, and is entitled by law to three years' credit, without interest, for the remaining three-fourths. As it is the intention of the law, however, in affording these easy terms of purchase, to open the agricultural lands as widely as possible to the freehold possession of real agriculturists, it is rendered compulsory on the purchaser to reside upon his farm and improve a portion of it; and he cannot purchase by this system more than 320 acres.

If persons desire to accumulate large possessions in land, they can still purchase at auction to any extent in blocks of 320 acres, situated conterminously or otherwise; but in all such purchases the value must be determined by public competition.

The Crown Lands Occupation Act of 1861 provides for the occupation of the grazing lands.

Crown lands may be leased for any terms not exceeding the following:—

For pastoral purposes in the first-class settled districts—one year.

For pastoral purposes in the second-class settled districts or the unsettled districts—five years.

For ferries, bridges, wharves, quarries, and for the erection of machinery for saw-mills, brickmaking, and other objects of a like nature—five years.

For mineral purposes other than gold mining—fourteen years.

Leases of runs within the first-class settled districts may be granted, subject to the following conditions:—

(1.) Lands shall not be let in portions of less than 640 acres, or one square mile.

(2.) Every lease shall be for the then current year, and shall expire on the 31st of December.

(3.) Leases may be renewed annually by payment, between the 1st and the 30th of September, to the Land Agent of the district, or to the Colonial Treasurer, of rent for the ensuing year at the rate of £2 per square mile, or such higher rate as the lessee may pay for the current year.

(4.) The holders in fee-simple of any lands may be allowed leases of Crown lands adjoining their properties, without competition, at the rate of £2 per section of 640 acres, and to the extent of three times their own purchased or granted lands, if there be so much vacant Crown lands available.

(5.) If there be several claimants for the same land, the division of the land amongst them may be settled by arbitration.

(6.) All leases granted under pre-emptive right shall be notified in the *Gazette*; and if within two months from the date of such notification the rent for the same shall not have been paid to the Colonial Treasurer, or to the Land Agent of the district, leases of the land shall be submitted for sale by auction.

(7.) Crown lands not previously under lease over which no pre-emptive right of lease shall have been exercised within one year from the passing of this Act, may be put up to lease at auction at the Land Office of the district, either on application or otherwise ; but no such sale of leases shall take place without one month's notice thereof having been given in the *Gazette*.

(8.) The upset price of each lot shall be at the rate of £1 per section of 640 acres, or of 10a., if half of the current year shall have expired before the day of sale, and the full price bid for each lot shall be paid at the time of sale.

(9.) Any lease bid for, but the price of which may not be forth-with paid, shall thereupon be again offered for sale at auction.

(10.) The lease of any land which may have been offered for sale at auction and not bid for, may be obtained, on payment of the upset price to the land agent of the district.

(11.) The sale, conditional or otherwise, of any portion of land under lease shall cancel so much of the lease as relates to the land so sold, and to three times the area adjoining it. Leases may also be cancelled by the Minister for other sufficient reasons, and the balance of rent from the date of such cancellation shall in either case be returned to the lessee.

The Governor may grant leases of Crown lands in the second-class settled districts or in the unsettled districts, subject to the following conditions :—

(1.) Leases of runs shall be converted into leases for five years, by payment to the Colonial Treasurer of rent, to be determined by appraisalment of the fair annual value for pastoral purposes of the lands comprised in such runs. The rent must not be less than £10 per annum.

(2.) Leases of old runs may, on their expiration, be in like manner converted into leases for the term of five years under this Act.

(3.) Leases shall not confer any right to purchase by pre-emption.

(4.) Crown lands may be resumed from lease for the site of any city, town, or village, or for commonage or other public purpose, and no compensation shall be payable to the holder of such lease for any such resumption, excepting re-payment of rent to an extent proportionate to the area withdrawn and the period unexpired. Provided also that in any case of partial withdrawal the holder may, if he think fit, surrender his lease, and have the full balance of rent refunded for the unexpired portion of the time for which it was paid.

The Governor may proclaim pastoral districts in the second class or unsettled districts to be open for the formation of runs, and may alter the boundaries of such pastoral districts, and leases of such runs may be granted, subject to the following conditions :—

(1.) Runs shall, in ordinary cases, consist of not more than twenty-five square miles ; but should that area, in the opinion of the proper officer of the Government, be insufficient in average seasons for the pasturage of 4,000 sheep or 800 head of cattle, a run may be enlarged to whatever area, not exceeding 100 square miles, may be necessary for that purpose.

(2.) Tenders for runs may be deposited in a box to be kept for that purpose at the office of the Minister, and the person making the earliest tender for any run shall be entitled to a lease. Should two or more tenders for any run be opened at the same time, the lease shall be granted to the person whose tender shall contain the offer of the highest premium. Should two or more tenders embrace a portion of the same land, the common boundary may be determined by arbitration. Should a run not be occupied and stocked with not less than 200 head of cattle or 1,000 sheep within six months, or in the event of its being necessary to provide water by artificial means within eighteen months of the notification of the acceptance of the tender, the run shall be forfeited, and may be leased by auction sale.

(3.) Tenders shall be in a form to be prescribed by the Governor, and shall contain clear descriptions of the boundaries of the runs applied for, and the marks or natural features by which such boundaries are indicated, and also estimates of the areas and pastoral capabilities of such runs.

(4.) Every tender must be accompanied by a receipt, showing that a sum of money equivalent to twenty-five per cent. of the rent offered in such tender has been deposited in the Colonial Treasury; and in the event of the acceptance of the tender, the tenderer shall receive credit for the amount of the deposit in the first year's rent, and in the event of the tender being rejected the amount shall be returned.

The leading principle sought to be established in the law regulating the occupation of the pastoral lands, is to permit the use of those lands for grazing on the easiest terms consistent with justice, without sanctioning any rights of occupation which would stand in the way of agriculture and the general settlement of the country.

The growth of cotton, a new and experimental cultivation, is encouraged by a Government bounty of 3d. a pound for common, and 6d. a pound for Sea Island.

QUEENSLAND.—The land law of Queensland must be eliminated out of five measures which have been passed since 1860, and of which the following is a condensed abstract :—

Runs or sheep-walks to be held on a fourteen years' lease. The runs to be not under 25 and not over 100 square miles. The rent to be in the following proportions :—For the first four years, 10s. per square mile; and during the succeeding periods of five and five years the rent to be fixed by appraisement. But during the first period of five years the total of rent shall not be less than £25, nor shall it exceed £50; and during the second period the rent shall be between £30 and £70 for the block of twenty-five miles. Runs must be occupied and stocked to one-fourth of their capabilities within twelve months from the date of the lease. If they be not so occupied and stocked the rent is doubled, and six months later they may be declared forfeited. Expiring leases may be renewed, rent to be fixed by valuation, for another five years. If not renewed, the run is put up to auction, and the permanent improvements, if any, of the outgoing are to be paid for by the in-coming tenant.

For sale, the lands are divided into town, suburban, and country lots. Town lots—all land within two miles from the nearest town boundary; country lots—all other lands whatsoever. All lands (with one exception to be mentioned hereafter) are sold by auction. The upset price is £1 per acre. The purchaser to pay a deposit of ten per cent., and the remainder of the purchase-money must be paid within one month after the sale. *Agricultural reserves* of 100,000 acres have been proclaimed on the shores of Moreton Bay, Wide Bay, Port Curtis, and Keppel Bay; and within five miles of all towns of more than 500 inhabitants reserves of 10,000 acres have also been, and are to be, set apart. Farms on these reserves are to be from 40 to 320 acres, and application for them must be made at the office of the land agent of the district nearest the reserve. The applicant must at once pay, in money or land-orders, the purchase-money of £1 per acre; he must take his farm in hand, and improve and cultivate it; for if this condition be not fulfilled within six months after purchase, the money, less ten per cent., will be returned, and the farm reverts to Government. The purchaser of such a farm may, for five years, lease adjoining lands to the extent of three times the quantity owned by him, provided that the whole does not exceed 320 acres, at an annual rent of 6d. per acre. Within the five years the lessee has pre-emptive rights to the land—in part or in whole—so leased; but he must, on penalty of forfeiture, fence that land within eighteen months from the date of the lease. The rent must not be more than thirty days in arrear. No sub-letting is permitted, nor can money be borrowed on the security of such a lease.

A bonus is offered by the Government of ten acres of land for every bale of Sea Island cotton weighing 300 lbs.

SOUTH AUSTRALIA.—All Crown lands are open to purchase at the upset price of £1 per acre for country sections; all sales are by public auction. Two millions of acres are surveyed and parcelled out in lots of from 20 to 60, 80, 100, and 200 acres each. The Government acts on the principle of not reducing the upset price of land. The average price given for land in 1852 was £1 7s. 3d. per acre. In 1857 the average price was £1 4s. 4½d., and latterly £1 7s. 7d.

According to the regulations for the leasing of pasture land, the rights of existing lessees are preserved intact; but upon the expiration of their leases, the runs now held will pass under the operation of the Act. With the exception of persons discovering new pastoral country, applicants for runs will have to compete for them at public auction; but if leases put up to auction are not sold, or if the deposit paid upon them is forfeited, the Government reserve power to sell such leases by private contract for the upset price. The term of lease will be fourteen years. The upset price is fixed at 10s. per square mile per annum, with a minimum limit of £5, below which no lease will be issued. No run is to be leased until after it has been advertised for two months in the *Gazette*; if it should not be sold within six months from first advertising, it will have to be re-advertised, as at first. Every run must be certified as actually carrying at

least twelve head of cattle, or fifty head of sheep, per square mile ; this amount of stock to be placed on the run within twelve months from the date of the lease, and to be kept upon the run during the term for which it is held by the lessee.

TASMANIA.—Crown lands are divided into three classes :—
I. Town ; II. Agricultural ; III. Pastoral lands. The first class comprises all lands within the limits of a town, township, or village, or within five miles from the nearest part of either Hobart Town or Launceston. The second class comprises lands suitable for settlement for the purposes of cultivation. All other lands are included in the third class. Town lands *must* be sold by public auction. Agricultural and pasture lands may be bought by private contract on application to the Commissioner, and payment of the fees. These lands may also be sold by auction. Before being put up, the lots must be surveyed and mapped. Agricultural lands are to be sold in lots not exceeding 160 acres each ; pastoral lands in lots not exceeding 1,280 acres each. The upset price is to be fixed and made public by the Commissioner ; it is not to be less than 10s. per acre, which includes the expense of survey and grant-deed. Lands which remain unsold at auction may be bought within a year by private contract at their upset prices. The purchaser has the option of cash or credit. If he pays cash, he must pay one-fifth at once, and the remainder in a month ; if he takes credit, in the case of town lands, one-fourth has to be paid on purchase, and the rest in annual instalments of one-fourth ; one-tenth of the price being added as premium. For agricultural and pastoral lands the credit, whether by auction or private contract, is as follows :—a deposit of one-fifth to be paid at once, and the rest by annual instalments of one-tenth ; one-fifth of the price being added as premium. Purchasers may pay off the balance of the purchase-money at any time. No credit is allowed under £40.

Lands may be leased for a period of fourteen years at 10s. and 20s. per 100 acres.

The Commissioner of Crown lands may contract with any person for the grant to him in fee-simple of any portion of unsettled lands, of from 50 to 640 acres, subject to the following conditions :—

The applicant shall prove that he wishes to settle upon and cultivate the land, and that he is possessed of capital, equal in amount to £1 sterling for every acre of such land ; live stock, implements of husbandry, and other articles applicable to agricultural purposes, or to sawing timber, *to be considered as capital*. He shall declare that he has not contracted for or obtained a grant of land, and that he will not, until he has obtained a grant of the land, dispose of his interest in the same without the consent of the Commissioner. He must also during five years actually reside on some part of the land ; and in that time he shall bring into cultivation five acres of every fifty acres contracted, or shall erect buildings or machinery of the value of £250 for every fifty acres.

Waste lands, in lots of from 1,000 to 10,000 acres, may also be

let on lease for a term of ten years, subject to the following conditions :—

The lessee shall covenant that he will, within one year, stock the land with sheep or cattle, or both, in the proportion of 100 sheep or 20 head of cattle to every 1,000 acres ; and that he will, during the continuance of the term, keep such stock upon the land during a portion of every year. Every lease shall contain a proviso for the determination of the term granted, at any time after the expiration of the first two years, upon six months' notice by the Commissioner or by the lessee ; and that, in the event of the determination of the term by the lessee at any time during the last three years, he shall leave all improvements effected by him unimpaired ; and that in the event of the determination of the lease by the Commissioner, otherwise than for forfeiture by non-performance of the covenants, then that the lessee shall be entitled to compensation for all fences and buildings erected, and all drainage formed, and for all reasonable improvements effected by him ; the amount of such compensation, in case of dispute, to be settled by arbitration.

NEW ZEALAND.

The colony is divided into nine provinces, viz.—Auckland, New Plymouth, Wellington, Hawke's Bay, Nelson, Marlborough, Canterbury, Otago, and Southland.

The colonial waste lands consist of—1, fern ; 2, grass ; and 3, bush lands. The first are covered with a dense growth of the common fern, from four to five feet high, intermixed with small shrubs. The grass lands produce coarse grapes, with fern, flax, and small shrubs. The "bush" is the common forest land : tall trees, and dense jangled underwood, with here and there a few acres of natural clearings.

AUCKLAND.—Above 200,000 acres have been surveyed, and are at the disposal of the province. Persons who emigrate at their own cost may obtain, out of the lands surveyed and at the disposal of Government, free grants of land.

Timber-cutting licences are issued to sawyers and others, empowering them, on payment of an annual £5 licence fee, to fell, use, or sell the forest timber of the waste land.

Wild grazing land is leased for fourteen years, at a yearly licence fee of not less than £5, with £1 a year additional for every 1,000 sheep over 5,000 which the run will carry. No run to be granted larger than will depasture 25,000 sheep (say 50,000 acres). If during the lease any portion of the run be included in the bounds of any new hundred, or be required for sale, the lease to expire over such portion of the run.

TARANAKI.—Lots of from 40 to 240 acres are sold at public land sales ; deposit price, 10s. an acre. Retired officers of the Queen's or Indian service, becoming *bonâ fide* settlers, are allowed, according

to rank and time of service, a drawback from £200 to £600 in the purchase of waste agricultural lands.

WELLINGTON.—The upset price of land is 10s. per acre. Sheep-runs may be occupied by licence for fourteen years; for the first four years at the rate of $\frac{1}{4}$ d. per acre, for the next five years for $\frac{1}{2}$ d. per acre, for the last five years for 1d. per acre. Applicants for runs under 10,000 acres must deposit £25; for runs of above 10,000 acres the deposit is £50.

NELSON.—Lands are sold by auction at the upset price of from 10s. to 20s. for rural lands, and from 10s. to 15s. for pastures. The provincial Government grant depasturing licences for runs of 30,000 acres or under. Deposits must be paid at the rate of £15 for 15,000 acres, and £30 for 20,000. The rent is $\frac{1}{4}$ d. per acre for the first seven years, and 1d. for the remainder of the term of fourteen years.

OTAGO.—The following is an abstract of the land regulations now in force in Otago:—Land for settlement is divided into two classes—town and rural. Town land to be sold by auction in allotments or sections of one-fourth of an acre each; the upset price is £12 10s. per quarter section. An exception has been made when land has been rural land, and, remaining unsold, has been laid out as a town, and persons have houses or improvements erected upon such land; or where, for public convenience, permission is granted to erect buildings before a town can be surveyed. In such cases, the price fixed by the Board is the average price for which the adjoining sections have sold at auction. The Board has also power to sell to religious bodies one acre of town land, for the site of a church, at the upset price. Rural land to be sold at £1 per acre, subject to conditions of improvement. Certificate of occupation granted for rural lands on payment of £1 per acre, provided the purchaser expends in money or labour for all improvements, including building and fencing, within four years, a sum equal to 40s. per acre. Holder of certificate entitled to demand and receive Crown grant as soon as the conditions of purchase are fulfilled. Land cannot be assigned previous to a Crown grant being obtained, without consent of the Waste Land Board. Applications for rural land to be made to Waste Land Board; £1 an acre to be deposited on application being granted. When more than two applicants apply on same day for rural lands, the same to be put up for sale by auction at the upset price of £1 per acre, the applicants alone allowed to bid. Rural land to be sold in quantities of not less than ten acres, to be of a rectangular form. An exception is made to this rule by which the Board may sell to proprietors of adjoining lands land in less quantity than ten acres, and of irregular shape, to complete their properties. Land to be surveyed by Government. The practice of the Waste Land Board is, to advertise that a particular block of land has been surveyed, laid off in sections, and will be open for application on a given day, and that the maps may

be seen at the Land Office. The object of this rule is, that the whole of the public may have an equal opportunity of making selections and of examining the land before applying. On the day stated in the advertisement, applications are made at the Land Office, and as the land in the newly-surveyed districts is in great demand, selling often considerably beyond the upset price, it has become the habit of the applicants to apply for the whole of the sections in the block, in order that they may have the opportunity of bidding for any section, should they fail to obtain the one they particularly desire, which could not be done had only one section been applied for. The Waste Land Board, by clause 33 of the regulations, is bound to post all applications in a room at the Land Office, open to the public for a period of not less than ten days; and any person may object to the granting of an application, in which case the application, instead of being decided by the Chief Commissioner as a matter of routine, is referred to a meeting of the Waste Land Board. The particulars of the applications are advertised in the local papers, and posted in the Land Office, and a day is stated on which the decision will be given. In the case of two or more applications on the same day, the decision must, by clause 11, be—that the land must be put up to auction between the applicants. On the day of decision, the applicants must attend personally, or by agent, and the highest bidder becoming the purchaser, must pay down the full amount of purchase-money. Should there be but one applicant for any quantity of land, it is granted at £1 per acre. Should there be no application for a newly-surveyed block on the day on which it has been advertised, it remains open for application, the applicants having priority according to the date of their applications. Land possessing special value, as containing minerals, may be sold by auction, or leased. The fees on the issue of any Crown grant not to exceed 20s. Board to grant depasturing licences, and to require applicants to deposit £20, which, if run stocked within six months, shall be returned to applicant. Further time may be granted. Deposit to be forfeited in case of failure. Return of stock to be made by owners. Assessment to be levied on stock, viz.—6d. per head on great cattle, and 1d. per head on small cattle. Persons occupying Crown lands without licence liable to penalty. Licensed occupier may cut firewood, &c., for domestic purposes, &c. Cattle trespassing on Crown lands may be impounded. Licensed occupier to have a pre-emptive right of purchase on his run to the extent of eighty acres for principal station, and ten acres for each out-station. When any portion of land sold to other than lessee, he (lessee) shall have three months before giving possession, to afford time for removal of property. In the case of pasture and timber licences, name of applicant and description of run to be published. Claim cannot be disputed after lapse of three months from date of publication. Lease may be forfeited, if run not stocked within six months. Estimate of stock for run :—

For any number of sheep up to 500, a run may be granted calculated to depasture any number not exceeding 5,000 sheep.

For every additional 100 between		
500 and 1,000 for 500 additional sheep		
1,000 and 3,000 for 400	"	"
3,000 and 5,000 for 200	"	"
5,000 and 10,000 for 100	"	"

And in no case shall a run be granted capable of containing more than 25,000 sheep. In estimating runs for great cattle, one head of such cattle shall be rated as six sheep.

Lessee entitled to licence for fourteen years when run stocked.

Conditions:—

1. When run, or part of a run, declared into a hundred, licence shall cease.
2. If land comprised in run shall be sold, licence shall cease.
3. Annual licence fee, £5; and in addition, £1 per 1,000 for every 1,000 sheep above 5,000 the run is capable of containing: six sheep rated as one head of great cattle.
4. On non-payment of fees, &c., lease may be forfeited.

CANTERBURY.—The following are the land regulations in force in Canterbury:—

The Crown lands are divided into town lands, rural lands, and grazing lands. *Town lands* must be sold by public auction. The time and place of each sale must be published thirty days beforehand, and the map of the town deposited at the land office for inspection. The size of the sections, and the upset price, will in each case be determined by the Government. The highest bidder will have to pay a deposit of ten per cent. on the amount of the purchase-money, and the remainder must be paid within one week after the sale, on penalty of forfeiture. *Rural lands* are open for sale at the uniform price of 40s. per acre, in sections of not less than twenty acres. Free grants of thirty acres are made to naval and military invalids actually disabled in war, or to their widows. *Grazing licences*.—Applicants must state the boundaries and extent of the runs they apply for, and they must also state the number and description of the stock they propose placing on the run, within the next twelve months. The runs are to be allowed at the rate of 120 acres per head of cattle, and 20 acres per sheep. The licence fees are—under 1,000 acres, £1 per 100 acres; over 1,000 and under 5,000 acres, 2d. per acre for the first 1,000, and 1d. for each acre over 1,000. Above 5,000, $\frac{1}{4}$ d. per acre for the first two years; $\frac{1}{2}$ d. per acre for the third and fourth years; $\frac{3}{4}$ d. for the fifth and more years. A grazing licence gives no right to the soil or timber, and the sale or grant of any portion of the land determines it at once; but it gives a pre-emptive right over portions of the run, viz., on a run of from 1,000 to 5,000 acres at 5 per cent. of the average of the run. In the case of 5,000 acres or more, the squatter has a pre-emptive right to 250 acres near his principal station. *Timber licences* are granted at 10s. a month, or £5 a year.

AIDS TO IMMIGRATION.

AUSTRALIAN COLONIES.

VICTORIA.—Her Majesty's Emigration Commissioners grant free passages to Victoria to single female domestic servants, of good character, between the ages of eighteen and thirty-five; and to married agricultural labourers, with not more than two young children. The Commissioners select the emigrants from England, Ireland, and Scotland, in numbers proportioned to the population of each of those parts of the kingdom respectively.

NEW SOUTH WALES.—The following regulations for the introduction of immigrants are now in force:—

1. Any resident in the colony who may be desirous of introducing from the United Kingdom immigrants of the labouring classes, will be permitted to do so on making the following deposits, and furnishing the names and all particulars of the persons to be introduced, and also subject to the conditions hereinafter named:—

Sex.	Age.			
	Under 12 Years.	12 and under 40 Years.	40 and under 50 Years.	All above 50 Years.
Male.....	£4	£7	£9	£12
Female.....	3	4	7	12

2. In like manner any person may introduce from the United Kingdom immigrants of the labouring class without naming them in the Colony, on payment of the following rates:—

Sex.	Age.			
	Under 12 Years.	12 and under 40 Years.	40 and under 50 Years.	All above 50 Years.
Male.....	£4	£11	£18	£15
Female.....	3	4	7	12

3. It must be understood that the Government will only guarantee passages for labourers selected under the last clause, to the extent of money allotted for this purpose, which, in the year 1863, was £30,000.

4. Any sums which depositors desire to add, for the purpose of providing the outfit required by the Emigration Commissioners in

London, will be received and transmitted to the Commissioners. The estimated cost of such outfit is about £3.

5. The persons eligible are mechanics of every description, domestic servants, and all persons of the labouring class. They must be of sound mental and bodily health, and of good moral character.

6. Passages will not be granted under these regulations to children under fifteen years of age, unless forming part of a family, or unless their parents be resident in the Colony.

7. In the event of any person nominated for a passage declining to emigrate, or in case the amount deposited shall exceed that required for the number of emigrants actually introduced, the amount deposited, or the excess, as the case may be, will be returned to the depositor, upon receipt in the Colony of the Emigration Commissioners' report recommending its refundment.

8. The passage certificate must be forwarded to the depositor's friends, or agents in the United Kingdom, and it must be produced within twelve months after date to Her Majesty's Emigration Commissioners in London; who will provide passages for the immigrants proposed to be introduced.

QUEENSLAND.—Land orders to the value of £18 are issued—1st, to persons in the Colony who wish to pay the passages out of persons in England; 2nd, to any one paying the passage of an immigrant; and 3rd, to every immigrant from Europe who has paid his own passage out. The latter class can claim the £18 order immediately after landing, and after a two years' residence they are entitled to a further order to the value of £12. Two children, between four and fourteen, count as one grown-up passenger; and for such two children the head of the family is entitled to a land order. No half orders are issued for odd children. The claimants to land orders must, if men, be under forty; and if women, under thirty-five. But in the case of a married couple, introducing five children or more, there is no restriction as to age. Passengers should therefore have their ages correctly represented in the contract tickets which they receive from shippers. Surgeons, engineers, stewards, sailors, or other persons rated on ships' books, are not entitled to land orders. It is also a condition that claimants for land orders must come *direct* from Europe. Land orders are not (since October, 1862) received in payment for town or suburban lands—they are set aside for the purchase of country lands and agricultural reserves. Land orders obtained by colonists are transferable and saleable at once; orders obtained by immigrants are saleable only six months after date.

By a law passed in July, 1862, the introduction of labourers from India is permitted under the following conditions:—

1. The Indian labourers, usually known as *Coolies*, are to bind themselves to an industrial residence of five years in the Colony. 2. The Government provide passages for the Coolies, and the employers on whose demand these people are introduced, have to pay the passage-money and all other expenses which may be incurred, together with a proportionate charge for the introduction of 25 per

cent. of women. 3. The Cooly may change his employer at the end of three years, or he may serve the same employer the remaining two years; or he may, at any time after three years, free himself from the obligation of residence by a payment to the treasury of £2 10s. for every year of the remainder of his indenture; this fine to be paid over to the employer. 4. The Coolies are entitled to back passages; the cost to be defrayed by their employers. 5. Coolies are transferable by consent of all parties concerned. 6. The Government scale of wages and allowances shall be paid to the Coolies.

The Queensland Government promotes immigration, in the first place, by the land-order system, the particulars of which have been detailed above. Provision is also made that any colonist can procure a free passage out to his friends in Europe by paying into the Immigration Office the sum of £4 for each grown-up person he wishes to bring out, and £2 for every child under fourteen. Infants are free. In return, the colonist receives a passage certificate, which he sends to the person he wishes to bring out. This certificate must, within one year of date, be presented to the Emigration Commissioners, who will ascertain the eligibility of the holders, and in due course assign their passage. Remittance immigrants, on their arrival in Brisbane, are provided with board and lodging *free for ten days*, after which time a charge is made of 1s. a day. No land orders are granted to such immigrants.

A certain number of *free* passages are granted by the Emigration Commissioners, chiefly to young unmarried women, agricultural labourers, and a small proportion of mechanics, at the expense of the Colony. They are provided for on landing until a reasonable offer of service is made to them; but if they refuse this, they forfeit all further claim to maintenance. After two years' residence in the Colony this class of emigrants is entitled to land orders to the value of £12. Certificates must be produced, attested by two respectable householders, and a qualified surgeon, all resident in the neighbourhood where the applicants have been living, stating they are in sound bodily and mental health, of good moral character, and not known ever to have been convicted of crime. The certificate must also contain the number, names, ages, and sexes of their family.

SOUTH AUSTRALIA.—The following are the Assisted Passage Regulations adopted by the Colonial Parliament. Their distinguishing feature is, that by far the majority of assisted immigrants are to be *named and part paid for* by persons in the colony; and that only failing a sufficient number of such nominees, the emigration agent in England is empowered to grant embarkation orders to applicants in England:—

(1.) Any resident of South Australia desirous of procuring a passage from the United Kingdom for eligible emigrants, may effect that object by paying to the Immigration Office such sums of money named hereunder as may apply in each instance.

(2.) On payment of the money a certificate will be issued, guaran-

teeing passages to an equivalent number of persons, on presentation of the certificate to the South Australian emigration agent in London, provided they are approved on inspection by such emigration agent.

(3.) The certificate will have twelve months' currency; will be transferable, but only to persons of the same nationality as those named in the certificates; and in no case will the contributor have any portion of the money paid refunded to him; but in order to prevent any injustice arising, through the non-emigration of any of the persons for whose benefit the certificate was in the first instance obtained, the emigration agent will receive, in Britain, any money balance which may be required under the regulations, to entitle the persons who actually claim under the certificate to passages.

(4.) The following are the classes eligible for passages:—*a*, married agricultural labourers, shepherds, herdsmen, and copper miners, not exceeding forty-five years of age; *b*, single men, or widowers without children under sixteen, of any of the above classes, not exceeding forty years of age; *c*, single women servants, or widows, without children under sixteen, not exceeding thirty-five years of age; *d*, married mechanics (when required in the colony), such as masons, bricklayers, blacksmiths and farriers, wheelwrights, sawyers, carpenters, &c.; also gardeners, not exceeding forty-five years of age; *e*, single men of class *d* (when required), not exceeding forty years of age; *f*, the wives and children of married emigrants.

(5.) The emigrants—personally, in the case of single adults of sixteen years and upwards, and by the head of the family in other cases—sign an undertaking in the sum of £20; which, however, will not be enforced unless the person, or any one or more of the persons named in such undertaking, or on whose behalf such undertaking shall have been given, shall leave, or attempt to leave South Australia within two years after arrival.

(6.) The emigration agent will, after approval, issue embarkation orders according to date of acceptance, so far as may be consistent with sanitary precautions, regulating the proportion of young children to be embarked with adults in vessels.

(7.) The following sums must be paid in aid of the passages of—Men, £4; women, £3. Children under fourteen years of age half these rates.

(8.) *Eligible candidates.*—The candidates must be in the habit of *working for wages*, at one of the callings mentioned above, and must be going out with the intention of working for hire in that calling. They must be sober, industrious, of good moral character, in good health, free from all mental and bodily defects, within the ages specified, appear physically to be capable of labour, and have been vaccinated or had the small-pox.

Ineligible candidates.—Passages cannot be granted to persons intending to proceed to the other Australian colonies; to persons in the habitual receipt of parish relief; to parents without all their children under sixteen then in Great Britain; to children under sixteen without their parents; to husbands without their wives, or wives without their husbands (unless, in the last three instances, the parents, hus-

band, or wife, be in the colony); to single women who have had illegitimate children; or to persons who have not arranged with their creditors.

(9.) *Free passages* are occasionally granted, subject to the above conditions, to the following classes:—

a. Married agricultural labourers, shepherds, herdsmen, and copper miners, not exceeding forty-five years of age.

b. Single men, or widowers without children under sixteen, of any of the above classes, not exceeding forty years of age.

c. Single women servants, or widows without children under sixteen, not exceeding thirty-five years of age.

d. Married mechanics (when required in the colony), such as masons, bricklayers, blacksmiths and farriers, wheelwrights, sawyers, carpenters, &c.; also gardeners not exceeding forty-five years of age.

e. Single men of class d. (when required), not exceeding forty years of age.

f. The wives and children of married immigrants.

When the applications from persons resident in the colony are insufficient in number, the emigration agent in England is authorised to grant *assisted passage certificates* to persons in Britain, subject to, however, and in accordance with the above regulations, so far as applicable.

Persons having resided in South Australia for one year, who may introduce, at their own cost, immigrants of either of the classes specified in the Assisted Passages Regulations, shall be entitled, on the arrival of those immigrants, to receive a certificate for an amount equal to the cost which might have been incurred by the Government for the immigration of such persons; such certificate to be receivable as cash at the Treasury for the purchase of Crown lands on and after maturity, and the amount expressed therein to be based upon the average contract rate, payable per statute adult for immigrants by the three Government emigrant vessels then previously reported as chartered; provided—

(1.) That such persons have been inspected and approved by the emigration agent in England, or that notice of such intended introduction of immigrants be addressed in writing to the immigration office at least six months prior to the date of their arrival in the colony.

(2.) That on landing a certificate be obtained from the immigration agent at Port Adelaide, to the effect that the immigrant so introduced is eligible for acceptance by the emigration agent at the date of departure from England.

(3.) That on presentation of the money certificate at the Treasury after its maturity (two years after date), there be attached thereto a declaration that the persons in respect of whose introduction the certificate was issued, have been constantly since arrival, and are then resident in South Australia, and have not, during such residence, been recipients of public relief.

NEW ZEALAND.

AUCKLAND.—The provincial agents in England are authorised to grant land orders to persons intending to emigrate to, and settle in Auckland. The obtaining this land order is indispensable, as no free grants of land are made without it. The grants are to be for men or women of above eighteen years of age, forty acres; and for persons between the ages of five and eighteen years, twenty acres. Grants to the same extent are also made on account of servants imported at the expense of their masters. The only condition to the obtaining of the land order is, that the applicants be fit and proper persons for a colony. In this respect, the agents have a discretionary power either to give or refuse the land order. Intending emigrants who desire to obtain such order must apply to the agents, who will send them a form to be filled up by the applicants, stating their names, ages, actual occupation, &c. &c. They will also receive a form of certificate of character, to be signed by a magistrate, minister of religion, or public functionary to whom the applicant is known. If the particulars and certificate are satisfactory, the land order will be delivered a few days before the sailing of the ship, on the agent being satisfied that the applicant has paid his passage, and intends settling in Auckland. The province, therefore, offers to immigrants approved of by their agents, a free gift of forty acres of land, equivalent, at the lowest current price, to the sum of £20. The land order must be presented to the authorities of the province within twelve months from its date, and a residence of four out of five years is required to convert the first preliminary into an absolute or Crown grant. Naval and military officers, non-commissioned officers, privates, marines, and seamen, emigrating to Auckland, are entitled to land orders in the following scale:—Officers, to 400 acres; non-commissioned and warrant officers, 80 acres; private soldiers, marines, and seamen, 60 acres. Applicants must be prepared to produce their discharge, certificates of good conduct, &c., and the application must be made within twelve months after discharge. Duly qualified schoolmasters emigrating to Auckland are entitled to land orders for 80 acres. A fee of 10s. is charged on every 40 acre, and one of 5s. on every 20 acre order issued.

Encroft Library

WELLINGTON.—Settlers can obtain credit passages for their friends in England by application to the provincial Government, and by signing a promissory note for the amount of passage money. This note must be endorsed by another settler approved by Government. The Government of Wellington assists intending emigrants, through their relatives in the provinces, by a pecuniary grant. Application to be made in Wellington by the relatives.

OTAGO.—Immigration is aided by guaranteed passages. Settlers undertake to defray the passage of their friends, and in this under-

taking the Otago Government takes measures to have the persons nominated sent out. This is the rule ; but special instructions are occasionally given to the Government agents in the United Kingdom to facilitate or favour, in a money point, the coming out of particular classes of emigrants.

CANTERBURY.—The provincial Government assists immigration by contributing to the passage of eligible emigrants any sum equal in amount to the sum which the applicant himself pays in cash. Should any balance be left, the passenger's promissory note, payable by easy instalments, can be taken for the amount. All assisted passengers must be approved of by the emigration agent in England, and they must be labouring men or mechanics—single, under forty—or women servants.

BRITISH GUIANA.

From "Colonial Office List."

THIS colony is a portion of the South American continent, extending from east to west about 200 miles. It includes the settlements of Demerara, Essequibo and Berbice. It is bounded on the east by Dutch Guiana, from which it is divided by the river Corentyn, on the south by Brazil, on the west by Venezuela, and on the north and north-east by the Atlantic Ocean.

This territory was first partially settled by the Dutch West India Company in 1580. It was from time to time held by Holland, France, and England. It was restored to the Dutch in 1802; but in the following year re-taken by Great Britain, to whom it was finally ceded in 1814.

It is impossible to determine the exact area of the colony, as its precise boundaries are undetermined between Venezuela and Brazil respectively, but it has been computed to be 76,000 square miles.

Under the Dutch, Demerara and Essequibo had constituted one government, and Berbice another; which arrangement, indeed, continued in force under the British Administration, down to the year 1831.

The constitution of the colony of Berbice dates from the year 1732; under it the Governor was nominated by the directors of the mercantile body called the Berbice Association, and he was assisted by a council of six; any vacancy occurring being filled by the Governor's selection of one out of two nominations submitted by the remaining councillors. In the year 1817, however, an order was made by the Prince Regent in council, requiring *three* nominations to be made in lieu of *two* for the Governor's selection, and also declaring that if no such nomination were made in fourteen days, the Governor should be entitled to appoint absolutely to the vacancy. In 1826 an order of the king in council was issued, dissolving the then council of Government, appointing another, and thenceforward vesting the right of appointing to vacancies in the Governor, as representing the Crown.

The Court of Policy for Demerara appears to have been established in 1773, and in 1789 that for Essequibo merged into it, and the seat of Government for the united provinces was established at Stabroek, the site of the present metropolis, Georgetown. Under these circumstances, disputes having arisen between the colonists and the local government and West India Company, as to the right of appointing the colonial members of the Court of Policy, in the year 1788 a provisional "Plan of Redress," as it was termed, being in fact the draft of a new constitution, was framed by a committee of the States-General, to whom had been referred sundry petitions of the colonists. This being approved of, a commission was despatched by the States-General to the colony, and on their arrival in 1789, they dissolved the then existing Government, and established a new one for the con-

joined colonies upon the basis of the scheme in question, which continued in operation notwithstanding the captures of the colony by the British in 1796 and 1802, and its cession in 1803, the articles of capitulation having stipulated that the laws, usages, and institutions of the colony should be maintained as before. It is, therefore, advisable now to advert to the leading provisions of that document.

The Council or Court of Policy was to consist of, 1, the Director-General; 2, the Commander of Essequibo; 3, the Fiscal of Essequibo; 4, the Fiscal of Demerara; 5 and 6, two colonists from Essequibo; 7 and 8, two colonists from Demerara.

The members (unofficial) were to be chosen "from among the principal, most capable, and most religious inhabitants above twenty-five years of age, professing the Protestant religion, and perfectly acquainted with the Dutch language, and who had resided at least three years within the colony." It will be essential to bear in mind that no other definition of the qualification of a member of the Court of Policy has existed to this moment, inapplicable as the preceding obviously is to the altered state of things. There was in addition a provision against the eligibility of parties within certain degrees of consanguinity, which, however, has been practically disregarded.

By a proclamation of Governor Beaujon, in 1796, it was enacted that any person duly elected and declining to serve, should be liable to a penalty of 3,000 guilders, unless he had served within two years next preceding his election.

In the first instance, the unofficial portion of the Council was to be chosen from a double nomination by the Colleges of Kiezers, or Electors, of which there were two, one for each colony,* each consisting of seven members elected by a majority of the votes of the inhabitants possessing not fewer than twenty-five slaves, such votes to be in writing and signed by the voter. The tenure of the office of Kiezer, as subsequently defined by proclamation of Sir Benjamin D'Urban, in 1831, was to be for life, unless the party resigned, or ceased to be an inhabitant. The Kiezers, before proceeding to a nomination, were to be sworn to the faithful discharge of their office before the Director-General, a ceremony which continued to be observed before the Governor, until the passing of Ordinance No. 16 of the present year.

A periodical change in the constitution of the Council or Court of Policy was secured, by providing that the senior colonial member should retire yearly.

The Director-General was to be allowed a double vote, and the Secretary of Demerara was to be the "Minister of the Court of Policy."

Such seems to have been the *original* legislative constitution of the colony. We now come to the occasion on which what are termed "Financial Representatives" were added.

It appears that in 1795 it was deemed necessary, during a period of some confusion, to introduce four members, "commissioned" by the Colleges of Electors of both colonies, to have jointly with the

* Demerara and Essequibo only here are alluded to.

Court of Policy the administration of the public funds.* In the following year, however, Governor Beaujon thought fit to annul that arrangement, and to enact that to secure to the inhabitants a more ample representation at the raising of taxes, in lieu of the four above-mentioned, there should be six inhabitants adjoined to the Governor and Court of Policy, three from each colony, to be elected by the inhabitants qualified as in the case of Kiezers, and to serve for two years, but whose powers should be strictly limited to the raising, with the Court of Policy, colony taxes, and examining also with that body the public accounts.

Beaujon's proclamation, however, was materially modified, though without affecting the definition of the duties of the Financial Representatives, by a proclamation of Acting Governor Carmichael, in 1812, consolidating the two Colleges of Kiezers and Financial Representatives. This proceeding remained operative, though unconfirmed by the Crown, until 1831, when Sir Benjamin D'Urban became Governor of the united colony, and it was annulled by a royal instruction, restoring the pre-existing arrangement, and extending the right of suffrage to the inhabitants of Berbice.

Such is the state of things which has remained up to the present time, with the exception in regard to the franchise hereafter to be noticed, and from which the inference seems to be clear that the Financial Representatives had and have no authority whatever, except by express permission from the Crown, to discuss any item upon the estimate so as to alter its amount, although they might refuse to include any sum to which they objected in their calculations of the funds necessary to be raised by taxation.†

The inherent right of the Financial Representatives to exercise this power has been, however, strongly maintained by the colonial members upon all occasions, and this has led to collisions between the executive and the elective section of the Court.‡ The position they assume is based upon the construction of certain passages in a decree of the States-General, dated 27th August, 1788, to the effect that "the contributions for the colonial chest are to be regulated by the inhabitants themselves," and in the instructions issued to Director-General Van Grovestein, in 1793, "he will take care not to leave the administration of the colony chest wholly to the colony members of the Court of Policy, but will thereto admit a greater number of the colonists—for example, the Kiezers of both rivers," and also upon the nature of certain entries in the Minutes, from 1798 to 1806. They do not appear to bear out the claim of right which has been founded upon them, since the evidence throughout seems to proceed upon the assumption that due provision has been

* Beaujon's Procl., Loc. Guide.

† During the discussions on the Civil List, in 1848-9, it was suggested by some of the elective section to adopt this course, leaving upon the Governor the responsibility of paying the difference between the sums fixed and the amount provided.

‡ "Proceedings relative to the Functions of the Financial Representative," 1832.

previously made for the sovereign's chest, which is represented by the modern civil list.

The foregoing is a succinct but sufficiently accurate sketch of the legislative constitution, as it existed up to the year 1849, when the first step in the process of amelioration was effected by the passing of the Ordinance No. 15, for regulating the elective franchise, and dividing the colony into electoral districts.

The great principle of the whole system of government is evidently *centralisation*. Until the year 1826 there existed not even local subdivisions of the colony. Demerara and Essequibo were then distributed into ten parishes, and the same process was subsequently applied to Berbice. This arrangement, however, was simply ecclesiastical, involving no civil authority or jurisdiction, for the members of the vestries constituted to administer them were, and still are, nominated from time to time by the Court of Policy, while the combined Court grants the only funds at their disposal, whether for maintenance of the fabric or support of the poor, exclusive of what trifling income may be derived from the seat-rents of the churches.

It was not until 1837 that the first municipal body was incorporated; nor has the principle since been materially extended in its application, although some advance has undoubtedly been made.

In the year 1855, under the administration of Governor Wodehouse, an ordinance was passed, to alter and amend the political institutions of the colony; but although in many respects a great improvement upon the existing state of things, it failed to receive the approval of Her Majesty's Government, and, consequently, never came into operation. The leading principles of that measure were the abolition of the College of Electors, and providing for the election of the unofficial members of the Court of Policy, as well as of the Financial Representatives, by the direct and open voting of the constituency created by Ordinance 15 of 1849; and the enlarging of the qualification for a seat in either body, by including the tenure of property under lease, and income from whatever source derived, of not less than £300 duty per annum. All preceding proclamations and laws (except 15 of 1849) were repealed; so that this would have become the constitutional charter of the colony. Since that time no legislation has been attempted in the same direction until the passing of Ordinance ~~not~~ of the present year, which, however, is a mere declaratory act, defining the meaning of the term "colonist," as employed in the "Plan of Redress" above noticed; and Ordinance No. 16 of the present year, to remove some difficulties in the exercise of the functions of the College of Electors.

The constitution may be summed up very briefly. It consists of a Governor, Court of Policy, and a Combined Court. The functions of the Executive and Legislative Councils, and of the Assembly, are performed by the Governor and Court of Policy, assisted by the six Financial Representatives for certain purposes.

The Court of Policy is composed of five official and five elective members. The official members are the Governor, the Chief Justice, the Attorney-General, the Administrator-General, and the Govern-

ment Secretary, who is also Secretary to the Court. The elective members are chosen as follows :—When a vacancy occurs, the seven Kiezers, who are chosen for life, meet and submit to the Court of Policy the names of two persons, from whom one is selected by the Court. All laws are enacted by this body, which also takes a prominent part in the general administration of the affairs of the colony.

The constitution, however, requires that for the purpose of voting the annual expenditure and framing the taxes, they shall call to their assistance the six Financial Representatives, during whose attendance the Court is called the Combined Court. The colony is divided into five electoral divisions, each of which has its Kiezer or Kiezers, chosen for life, and one or more Financial Representatives, elected for two years, and eligible for re-election.

Electoral Division.	Representatives.		Registered Electors.
1 County of Demerara	1 Kiezer	1 Financial	88
2 City of Georgetown	2 "	1 "	288
3 County of Essequibo	2 "	2 "	147
4 County of Berbice	1 "	1 "	32
5 Town of New Amsterdam.....	1 "	1 "	50
	7	6	605

In the colony of British Guiana the Roman Dutch law is in force in civil cases, modified by orders in council, and local ordinances ; the criminal law is now the same as that of Great Britain, and is administered in the same manner, except that there is not the intervention of a grand jury.

There is no House of Assembly or Executive Council.

Revenue and Expenditure.

	£	£		£	£
1856	230,595	235,013	1861	303,753	305,444
1859	274,615	245,217	1862	275,007	296,959
1860	279,821	302,533	1863	261,265	251,185

Total Value of Imports and Exports.

	£	£
1855	886,016	1,331,371
1860	1,145,958	1,513,452
1861	1,339,712	1,583,649
1862	1,107,181	1,365,295
1863	1,121,979	1,679,385

Population in 1861.

Natives of British Guiana.	West India Islands.	Madeira or Cape de Verde.	Europe.	North America.	Other Places.
93,861	8,309	9,859	1,482	147	298

Immigrants.

Africa.	Madras.	Calcutta.	China.	Miscellaneous Population.	Total Population.
9,299	3,664	18,416	2,629	948	148,907

The aboriginal Indians were estimated, in 1851, at about 7,000 ; but the best authority in the colony, Mr. M'Clintock, Superintendent of Rivers and Creeks, Pomeroon District, carries the number now as high as 20,000 or 21,000. He is of opinion that the return in 1851 was greatly under-estimated ; and that the disturbances in Venezuela have caused large accessions to the numbers of the tribes within the British territories.

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